The Citadel®

The Citadel Bulldogs

The Military College of South Carolina

171 Moultrie Street • Charleston, South Carolina 29409

NONDISCRIMINATION POLICY

The Citadel is committed to providing equal opportunities to men and women students in all campus programs, including intercollegiate athletics, in order to make The Citadel the best coeducational military college in America.

The commitment requires that no discrimination shall occur in our admissions policies, academic programs and services, or employment practices on the basis of sex, race, color, religion, or national origin. This policy is in accordance with Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 as amended. Inquiries concerning the application of Title IX and other nondiscrimination laws may be referred to The Citadel's Affirmative Action Officer and Title IX Coordinator, 843-953-5252, Bond Hall Room 369, 171 Moultrie Street, Charleston, South Carolina, 29409, or to the Assistant Secretary of Education, Civil Rights Division, US Department of Education, Washington, DC, 20201-2516.

THE CITADEL

THE MILITARY COLLEGE OF SOUTH CAROLINA
CHARLESTON, S.C.

FOUNDED 1842

CATALOG ISSUE
2005-2006

Leadership

Since 1842, The Citadel has molded individuals into leaders. As we enter a new millennium, The Citadel reaffirms its belief that the whole person is one who is worthy of the trust of others. The following qualities of leadership will be the guiding principles for The Citadel as we develop a new generation of leaders to serve their families, their communities, their professions, and their country.

A Leader. . .

believes in an optimistic vision for the future.

motivates others to achieve.

demonstrates loyalty.

respects the rights of others.

sets a good example.

pursues excellence in all endeavors.

treats others with concern and civility.

demonstrates the courage to act responsibly.

possesses uncompromising integrity.

is devoted to duty and honor.

These principles will guide our behavior and serve as our moral compass in all that we say and do.

Major General Roger C. Poole, UMSC
Interim President

S.C.
S.C.
STEVEN

Brigadier General Donald A. Steven
Provost and Dean of the College

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The Citadel Academic Calendar 2005-2006

2005

August 13	Class of 2009 Reports
August 21	Corps of Cadets Upperclass Students Report
August 23	Freshman Convocation
August 24	Classes Begin for the Corps of Cadets
August 30	Last Day to Drop/Add
Sept. 5	Labor Day (Classes Held)
Oct. 14-16	Parents' Weekend
Oct. 19	Last Day to Withdraw with a Grade of "W"
Nov. 11-12	Homecoming Weekend
Nov. 18	Thanksgiving Break Begins after Last Class
Nov. 27	Thanksgiving Break Ends
Nov. 28	All Classes Resume
Dec. 7	Exams Begin for Corps of Cadets
Dec. 13	Exams End for Corps of Cadets Winter Break Begins

2006

Jan. 8	Winter Break Ends Corps of Cadets Return
Jan. 11	Classes Begin for the Corps of Cadets
Jan. 16	Martin Luther King's Birthday (No Classes)
Jan. 17	Last Day to Drop/Add
March 8	Last Day to Withdraw with a Grade of "W"
March 18	Corps Day
March 24	Spring Break Begins after Last Class
April 2	Spring Break Ends Corps of Cadets Return
April 3	All Classes Resume
April 26	Exams Begin for Corps of Cadets
May 2	Exams End for Corps of Cadets
May 6	Corps of Cadets Commencement
May 8	Maymester and Summer I Evening Classes Begin
May 26	Maymester Ends
May 29	Memorial Day
May 30	Summer I Day Classes Begin
June 22	Summer I Evening Classes End
June 26	Summer II Evening Classes Begin
June 29	Summer I Day Classes End
July 4	Independence Day - No Classes
July 5	Summer II Day Classes Begin
August 3	Summer II Day Classes End
August 10	Summer II Evening Classes End

A Brief History of The Citadel

The Origin

In 1822, the South Carolina Legislature passed an "An Act to Establish a Competent Force to act as a Municipal Guard for the Protection of the City of Charleston and Vicinity." Land on the north end of Marion Square was selected for an arsenal and guard house, and in 1829, the architect, Frederick Wesner, completed the building which was known as The Citadel. A similar facility was constructed in Columbia, South Carolina, which was known as The Arsenal. State troops occupied both sites at a cost of $24,000 a year.

Governor John P. Richardson felt that guard duties should be combined with a system of education. On December 20, 1842, the South Carolina Legislature passed an act establishing the South Carolina Military Academy. The Citadel and The Arsenal were converted into educational institutions, and students replaced the state troops. In 1845, the role of The Arsenal was changed to the instruction of freshmen. As a result, cadets spent their first year in Columbia and transferred to The Citadel for the remaining three years. The South Carolina Military Academy became known for its high academic standards and strict military discipline.

Civil War Period

Enrollment in The South Carolina Military Academy increased from thirty-four students in 1843 to 296 in 1864. The $200 tuition in 1843 increased to $1,200 in 1864. When South Carolina seceded from the Union in December 1860, Major Robert Anderson moved his garrison of U.S. troops to Fort Sumter and requested reinforcements from the federal government. On January 9, 1861, Citadel cadets stationed on Morris Island fired on the U.S. steamer, the *Star of the West*, as it attempted to supply Fort Sumter with troops and supplies. This was the first overt act of the war.

On January 28, 1861, the Corps of Cadets was made part of the military organization of the state and was known as The Battalion of State Cadets. The Arsenal and The Citadel continued to operate as military academies; however, classes were often disrupted when the governor called the cadets into military service. Manning heavy guns, mounting guard duty, and escorting prisoners were among the services performed by the cadets. On February 18, 1865, The

Citadel ceased operation as a college when Union troops entered Charleston and occupied the site. The Arsenal was burned by Sherman's troops and never reopened.

Reopening

In January 1882, The Citadel buildings were returned to the State of South Carolina after seventeen years in the possession of the United States government. In the same month the legislature of South Carolina passed an act to reopen the college. The 1882 session began with an enrollment of 185 cadets.

Name Change

The name of the college was officially changed in 1910 to The Citadel, The Military College of South Carolina. The word *Academ*y had become synonymous with secondary schools, and the public had the misconception that the South Carolina Military Academy was a preparatory school.

New Campus

The Citadel had outgrown its campus on Marion Square, despite numerous building additions, and could accommodate only 325 students. In 1918, the City of Charleston gave the State of South Carolina 176 acres on the banks of the Ashley River for a new campus. In 1922, the college moved to its current location.

Today, the picturesque campus contains twenty-four major buildings. In addition to a Corps of approximately 1900 cadets—coeducational since 1996—the College of Graduate and Professional Studies offers undergraduate and graduate degree programs during the evening and summer. *The U.S. News & World Report* has ranked The Citadel among the best colleges in the region in its surveys of "America's Best Colleges."

Military Service

Citadel graduates have fought and died in every American war since 1860. As early as 1846, Citadel cadets served as drill instructors for the recruits of South Carolina's Palmetto Regiment prior to the regiment's departure for the Mexican War.

During the Civil War, the Corps of Cadets participated in eight engagements. The flag of the Corps of Cadets includes eight battle streamers representing those engagements and one streamer representing the Confederate States Army.

In the war with Spain in 1898, more Citadel alumni volunteered for service than were needed. In World War I, Citadel graduates were among the first contingents of American troops to fight with the English and French divisions. During the summer of 1942, the entire junior and senior classes were called to serve in World War II and the Class of 1943 became known as the class that did not graduate. Alumni have also served and sacrificed in wars in Korea, Vietnam, Lebanon, Grenada and in Operation Desert Storm and Operation Iraqi Freedom in Iraq and Operation Enduring Freedom in Afghanistan.

The legacy and service of Citadel graduates stand as a testament to their devotion to duty, love of country and understanding that freedom comes with a price.

Archives and Museum

The Archives was founded in 1966 when General Mark W. Clark donated the papers relating to his military career. Today, there are over three hundred collections in the Archives which pertain to The Citadel or have military significance. Some notable collections include the papers of Pulitzer Prize winning historian, Bruce Catton, and the Civil War letters of 1857 Citadel graduate, General Ellison Capers. Authors and scholars from the United States and Europe frequently visit the Archives to conduct research.

The Museum features the history of The Citadel from its founding in 1842 to the present. Photographs from the Archives highlight the exhibits which portray the social, military, academic, and athletic aspects of cadet life. Citadel rings from 1895 to the present are on display. Citadel graduates who lost their lives in major conflicts since World War II are memorialized in photograph albums in the Museum.

General Information

Accreditation

The Citadel is accredited by The Commission on Colleges of the Southern Association of Colleges and Schools, the recognized regional accrediting body in the eleven U.S. Southern states (Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) and in Latin America for those institutions of higher education that award associate, baccalaureate, master's, or doctoral degrees. The SACS web address is http://www.sacs.org. Information on the status of The Citadel's accreditation may be obtained from the Commission on Colleges by calling 404-679-4500 or by writing to the SACS home office, 1866 Southern Lane, Decatur, GA 30033. The Citadel is accredited by SACS to award the bachelor's, master's, and specialist degrees.

Civil Engineering and Electrical Engineering Programs are accredited by the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-7700 - telephone: (410) 625-2238, fax (410) 625-2238. The web address is www.abet.org or email them at eac@abet.org.

The undergraduate program in Business Administration and the program leading to the Master of Business Administration are accredited by the Association to Advance Collegiate Schools of Business.

Programs for the preparation of secondary teachers at the bachelor's level, for the preparation of secondary and special education teachers at the master's level, for the preparation of guidance counselors at the master's and specialist degree levels, and for the preparation of school superintendents at the specialist degree level are accredited by the National Council for Accreditation of Teacher Education. The dean of the School of Education serves as the Director of Teacher Education.

The B.S. Chemistry Program is accredited by the American Chemical Society.

The Citadel's School Psychology Program has been granted full approval by the National Association of School Psychologists. The Clinical Counseling program is accredited by the Masters in Psychology Accreditation Council.

Statement of Vision

Achieving excellence in the education of principled leaders.

Core Values

Academics: We produce graduates who have insight into the issues, ideas and values that are important to society and possess the skills necessary to deal with them successfully.

Duty: We emphasize the importance of individual accountability and the moral obligation of responsibility for the welfare of others.

Honor: We adhere to a code which teaches that uncompromising personal integrity is the primary guide in all situations.

Morality: We believe that an individual's character is of utmost importance and, therefore, we provide training which emphasizes ethical principles and core values.

Discipline: We operate a leadership laboratory which emphasizes a structured environment, acceptance of responsibility, self-confidence and service to others.

Diversity: We promote diversity in all segments of our campus community and in all aspects of college life.

Mission

Mission. The Citadel's mission is to educate and prepare graduates to become principled leaders in all walks of life by instilling the core values of The Citadel in a challenging intellectual environment.

The Citadel strives to produce graduates who have insight into issues, ideas, and values that are of importance to society. It is equally important that Citadel graduates are capable of both critical and creative thinking, have effective communication skills, can apply abstract concepts to concrete situations, and possess the methodological skills needed to gather and analyze information.

Throughout its history, The Citadel's primary purpose has been to educate undergraduates as members of the South Carolina Corps of Cadets and to prepare them for post-graduate positions of leadership through academic programs of recognized excellence supported by the best features of a structured military environment. The cadet lifestyle provides a disciplined environment that supports the growth and development of character, physical fitness, and moral and ethical principles.

A complementary purpose of The Citadel, realized through the College of Graduate and Professional Studies, is to provide the citizens of the Lowcountry and the State of South Carolina opportunities for professional development by offering a broad range of educational programs of recognized excellence at both the graduate and undergraduate levels. These programs are designed to accommodate the needs of non-traditional students seeking traditional and demanding academic challenges.

Institutional Characteristics. The Citadel is a coeducational, comprehensive, state-assisted, four-year institution whose primary undergraduate student body consists of approximately 1,900 members of the Corps of Cadets, all of whom reside on campus. The primary service area for these students is regional, with approximately half of each freshman class coming from South Carolina. The Citadel, however, does draw undergraduate students from all parts of the United States and many foreign countries. The college offers a wide range of baccalaureate degree programs (Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Civil Engineering, and Bachelor of Science in Electrical Engineering) in the humanities, social and natural sciences, business administration, engineering, and education. These academic programs prepare graduates of the Corps of Cadets for a variety of careers; about half of these graduates enter business and the professions, a third or more enter the military and government service, and the remainder go directly into graduate and professional study. Many graduates choose to pursue professional or graduate degrees later in their careers.

Through its undergraduate and graduate programs, the College of Graduate and Professional Studies serves a degree-seeking population of approximately 2,000. The primary service area is the South Carolina Lowcountry. The College of Graduate and Professional Studies offers three baccalaureate degree programs (Bachelor of Science in Business Administration, Bachelor of Science in Civil Engineering, and Bachelor of Science in Electrical Engineering) and seven graduate degree programs (Master of Arts, Master of Science, Master of Arts in Education, Master of Arts in Teaching, Master of Education, Master of Business Administration, and Specialist in Education). Meeting the needs of the South Carolina Lowcountry in terms of instruction, public service, and research, including such initiatives as cooperative programs with other educational institutions, is an important part of The Citadel's mission.

Together, the Corps of Cadets and the College of Graduate and Professional Studies enroll approximately 4,000 students, about three-fourths of whom come from South Carolina.

In its education programs, The Citadel acknowledges and endorses the teacher-scholar ideal, recognizing that the excellence of all of its academic programs is dependent upon the quality of its faculty. This ideal is pursued through teaching and lecturing, researching, writing, publishing, and public service. The Citadel's faculty also address audiences beyond the college by sharing their knowledge with other scholars and with the public.

The Purpose of The Citadel's Military Environment

The Citadel seeks to provide the best qualities of a military and disciplined environment to support the growth and development of character, physical fitness, and moral and ethical principles, thereby preparing its students to meet the requirements of citizens and especially of leaders. From the first year, with the Fourth Class System, through the senior year, the military environment requires additional duties and responsibilities not normally found on a college campus.

The military environment at The Citadel also attempts to draw out and cultivate such values as truth, honor, integrity, and courage. Qualities of proper behavior and etiquette are stressed, and excellence in military bearing and appearance is taught. Whether in military or civilian life, the testimony of the value of this institution in service to the nation, state, and local communities is prominent.

Requirements for Admission

The Citadel gives consideration to all applicants who meet the personal, physical, and educational requirements for admission to the Corps of Cadets. The Citadel seeks to enroll well-rounded, mature students whose motivation and educational achievements indicate that they are prepared to do college level work with a reasonable probability of success. Therefore, each admission portfolio is reviewed individually and must include at least the following:

a. *High School Record* (courses, grades, class standing). The high school record provides insight into an applicant's motivation, study habits, and scope of interest. Particular attention is given to grades earned in English, mathematics, science, history, and foreign languages.

b. *College Entrance Examination Board Test Scores.* Consideration is given to an applicant's test scores on the College Entrance Examination Board's Scholastic Aptitude Test (SAT) or the American College Testing Program's Assessment Exam (ACT). SAT scores from either the pre-March 2005 test or the new test that requires a written essay will be considered for applicants for fall 2006. **Students who desire to submit ACT scores taken after April 1, 2005 must include the optional writing test offered by ACT.**

Although these test scores represent only one factor in the determination of an applicant's acceptability, they tend to indicate the applicant's educational development with respect to contemporaries; therefore, the applicant's scores provide a reasonable evaluation of actual preparedness and potential to do college level work.

c. The Citadel seeks to determine acceptability through a thorough evaluation of each applicant's character, maturity, motivation, readiness for college, amenability to a regimented lifestyle, emotional stability, and potential to contribute to cadet life. Where any one of these factors is in question, the College may obtain additional information by means of interviews with the applicant and/or the applicant's parents or other persons who know the candidate. If it is deemed necessary, The Citadel may request that the applicant present a written report on goals in life, reasons for choosing The Citadel, or reasons for choosing a particular major field of study.

d. The Citadel reserves the right to cancel any academic acceptance or reservation if the recipient is found to be physically disqualified or if a subsequent academic or conduct record is found unsatisfactory. Entrance requirements must be fully met before the date of matriculation. No one will be admitted on probation.

Initial Acceptance and Withdrawals

New cadets are admitted to the Corps of Cadets only in the first semester of the school year but may commence their academic work in the preceding summer. Mid-year transfers from the federal service academies will be considered on an individual basis.

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return to The Citadel in August following any college year, a written request for an honorable discharge must be sent to the Registrar.

Admission Procedure

Formal application for admission must be made by the applicant. An application form should be requested from the Office of Admissions, The Citadel, 171 Moultrie Street, Charleston, South Carolina 29409 or online at www.citadel.edu. The Citadel admits freshmen into the South Carolina Corps of Cadets only in the fall semester of each year.

A nonrefundable application fee of $40 must accompany each application. Applications for admission may be submitted after the candidate's junior year in high school. All students are encouraged to apply no later than the fall semester of the prospective cadet's senior year in high school. In addition, the applicant should make early arrangements to take the SAT or ACT test and have these test scores sent to The Citadel. Prospective cadets are responsible for having the official high school transcript sent directly to The Citadel's Office of Admissions.

The Citadel will advise the applicant of subsequent procedural actions as they are necessary.

A reservation fee of $300 is required of all new cadets accepted for enrollment. This reservation fee is not refundable to those students who cancel their reservations after May 1. A $400 non-refundable reservation fee will be required of all cadets accepted as “Early Decision” applicants.

Each applicant must undergo a thorough medical examination. Final admission is contingent upon the results of this test. Only The Citadel's forms, which are provided by the Office of Admissions, may be used to report these results. The medical examination form shows the immunizations required by The Citadel.

Personal Requirements

Applicants to the South Carolina Corps of Cadets must meet the U.S. Army standard for height and weight and be physically qualified as determined by the college physician. Should an accident, injury, or serious illness in any way change the physical status of the applicant after acceptance but prior to arrival on campus, the college physician must be informed immediately. Any physical impairment could result in cancellation or postponement of admission. In addition, an applicant must meet the following personal requirements:

a. Applicants must be at least 17 and less than 23 years of age on the day of matriculation at The Citadel. Exceptions to this policy are made only under extremely extenuating circumstances and with the permission of the Provost.

b. Applicants may not be married. (If a cadet marries, he/she will be discharged immediately.)
c. Applicants may not have a dependant biological child. (If a cadet has a dependant biological child, he/she will be discharged immediately.)
d. Applicants must not have a record of conviction of a criminal offense showing poor moral character.
e. Applicants are expected to complete successfully the Citadel Physical Fitness Test (CPFT) prior to arrival on campus. This test will be administered for record early in the fall semester, and individuals who do not meet standards will be required to participate in remedial physical training.

High School Course Requirements

All applicants for admission to The Citadel must be graduates of accredited high schools or must have satisfactorily completed the General Education Development (GED) examination. By this, the basic requirements for admission to the College comply with standards prescribed by the South Carolina Commission for Higher Education (CHE).

The following secondary school subjects are required:

Area	**Units**	
English	4	At least two units must have strong grammar and composition components, at least one must be in English literature, and at least one must be in American literature. Completion of College Preparatory English I, II, III, and IV will meet this criterion.
Mathematics	3	These include Algebra I (for which Applied Mathematics I and II may count together as a substitute if a student successfully completes Algebra II), Algebra II, and Geometry. A fourth higher-level mathematics course is strongly recommended. The fourth course should be selected from among precalculus, calculus, statistics, or discrete mathematics. Applicants who plan to major in mathematics, computer science, chemistry, physics, or engineering and who have not completed at least one-half unit of trigonometry will be required to complete MATH 119 with a grade of C or higher prior to enrolling in calculus.
Laboratory Science	3	Two units must be taken in two different

		fields and selected from among biology, chemistry, or physics. The third unit may be from the same field as one of the first two units (biology, chemistry, or physics) or from advanced environmental science with laboratory or marine biology with laboratory for which biology and/or chemistry is a prerequisite. Courses in earth science, general physical science, or introductory or general environmental science for which biology and/or chemistry is not a prerequisite will not meet this requirement.
Foreign Language	2	Two units of the same foreign language.
Social Science	3	One unit of U.S. History is required. Half units each of economics and government are strongly recommended.
Electives	4	Four college preparatory units must be taken from three different fields selected from among Computer Science, English, Fine Arts, Foreign Languages, Humanities, Laboratory Science (excluding earth science, general physical science, general environmental science or other introductory science courses for which biology and/or chemistry is not a prerequisite), Mathematics above the level of Algebra II, and Social Sciences. It is suggested that one unit be in Computer Science which includes programming (i.e., not just keyboarding) and one unit in Fine Arts (appreciation of, history, or performance).
Physical Education or ROTC	1	

Prior to entering The Citadel, each applicant should take steps to address any weaknesses in preparation in English or mathematics. The Citadel offers courses in these areas each summer.

The Citadel's Policy on Testing for Illegal Drugs

The Citadel has a clear and unwavering policy of zero tolerance for drugs. Whether on campus or off, the possession, solicitation, distribution, sale, or use of hallucinogenic, narcotic, or other controlled drugs or substances, or any drug paraphernalia, (except in accordance with a legal prescription for such substance, drug, or paraphernalia for the student possessing or using it), will result in expulsion. This policy does not permit cadets to tolerate these actions by fellow cadets. In support of this policy, The Citadel reserves the right to test members of the Corps of Cadets periodically for the presence of illegal drugs and other controlled substances. Agreeing to participate in this program of testing for drugs is a condition of final admission to The Citadel. Refusal to participate in this testing may lead to expulsion from the college.

Policy on Placement

The Citadel requires four semesters of language study or its equivalent in the same language for all majors except engineering and education. Students who wish to continue a language studied in high school or elsewhere must take a placement test in that language. The placement test score determines the level at which the student will continue his/her study of the language.

Credit for by-passed courses will be awarded when the higher level course has been completed at The Citadel with the grade of "C" or higher, transferred in from an accredited institution, or completed through an approved "testing out process."

If the grade of "F" is earned in a higher level course, no by-pass credit is awarded and all by-passed courses must be completed. If the grade of "D" is earned in the higher level course, that course may be repeated only once in an attempt to earn by-pass credits. If the grade of "C" or higher is not earned after one repeat, no by-pass credit will be awarded and all by-passed courses must be completed.

Entrance Examinations

All applicants for admission to The Citadel are required to take the College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing (ACT) Assessment Tests.

If an applicant lists The Citadel on either the SAT or ACT examination, the test scores will be sent to The Citadel approximately 30 days after the tests are taken. An applicant should complete the required entrance examinations early in the student's senior year in high school.

Students from a foreign country whose native language is not English must receive satisfactory scores on the Test of English as a Foreign Language (TOEFL). Students who score less than 550 on the TOEFL are generally not eligible for academic acceptance. The TOEFL is prepared and administered by the Educational Testing Service of the College Entrance Examination Board and must be taken before March 1 of the spring preceding admission.

In order to apply for these tests, the applicant must write directly to the College Entrance Examination Board, ATP, Box 6155, Princeton, N.J. 08540. The tests are normally offered four times each year (usually in September, November, February, and May) at locations throughout the United States and in some foreign countries. An application to take these tests must be submitted to the College Entrance Examination Board at least one month prior to the date of desired testing.

Transfer Student Admissions

A student who is applying for admission to the Corps of Cadets as a transfer student from another accredited college or university must have an official transcript sent directly from any college or university previously attended to the Office of Admissions at The Citadel. The high school record and college entrance examination scores will also be considered. In addition to meeting all the personal requirements listed above for cadet admission, a transfer student must have completed a minimum of two semesters as a full-time student and must have accumulated at least 24 hours of credit, maintaining a GPR of at least 2.0 (on a 4.0 scale) on courses equivalent to those offered at The Citadel. Students presenting college transcripts with less than two full-time semesters will be reviewed on a case-by-case basis. It is important for prospective students to realize that meeting any of the minimums stated in this section does not guarantee admission as a transfer student.

Transfer students must complete a full year in the Fourth Class System regardless of the number of academic credits transferred to The Citadel. Exceptions to this policy will be considered on a individual basis for transfers from federal academies.

Credit Earned Through Testing

International Baccalaureate Program

The Citadel recognizes the International Baccalaureate (IB) and awards college credit for scores of 4 or higher on “higher level” examinations in the IB Program. The number of credits will be determined by the score obtained. A complete listing of course credits that may be earned through the IB Program may be acquired from the Registrar’s office.

CEEB Advanced Placement Program

The Citadel awards advanced placement credit to applicants who score 3 or higher on appropriate examinations. Applicants desiring Advanced Placement credits must have the official score report form sent directly to The Citadel from CEEB. A complete listing of The Citadel's courses that may be completed through Advanced Placement credit may be obtained by contacting the Registrar's Office.

College Level Equivalency Program

Through College Level Equivalency Program (CLEP) Subject Examinations, students are permitted to earn college course credits for knowledge they have gained in certain subject areas prior to beginning their college experience. Students are permitted to earn credits through CLEP only during their first semester at The Citadel. After the student has completed one semester at The Citadel, no course credits may be searned through CLEP.

CLEPs credits may be earned under the following conditions:

1. Since all CLEP examinations are not accepted by The Citadel, the student must obtain prior approval through the Office of the Registrar.
2. The score earned must meet or exceed the current minimum scored recommended by CLEP for that subject area exam.
3. The amount of credit will be determined by the scope of the material measured.
4. Because of the laboratory experience is such an integral part of the Core Curriculum Science Requirement, credit for only the lecture portion of a science course may be earned through CLEP. The lab portions must be earned through a laboratory course.
5. Because the basic skills of listening to and speaking a language are such critical components of the Core Language Experience, completing any portion of this requirement through CLEP must be approved by the head of the Department of Modern Languages.

A complete listing of courses for which credit may be awarded through CLEP is available in the Office of the Registrar.

A student may receive credit for no more than four courses through CLEP or any other "testing out program."

Departmental Testing Out Program

Some Citadel departments have developed a process by which students may earn credit for selected courses. These processes may differ from department to department, and interested students should check with the Registrar's Office for a list of those credits that can be earned through this program.

A student may receive credit for no more than four courses through CLEP or any other "testing out program."

Academic Policies

Any exceptions to policies stated in this Catalog, purported to have been made verbally to a student by an official of the college, are null and void unless documented with a signed statement from the college official authorized to make the exception.

This catalog is not an unchangeable contract but an announcement of the current policies. Implicit in each student's matriculation at The Citadel is an unwritten agreement to comply with the institution's rules and regulations, which The Citadel may modify to ensure the quality of its academic programs. When graduation requirements are changed, students will be informed in writing. Every effort will be made to ensure that the new requirements can be met by the student's original expected graduation date.

Catalog of Record

The catalog bearing the number of the academic year in which cadets enter The Citadel will be their catalog of record for matters of academic policy.

When a cadet is readmitted after an absence of at least three academic semesters (summer sessions will not be considered as semesters for this purpose), the catalog bearing the number of the academic year in which the student is readmitted will be the catalog of record for matters of academic policy and graduation requirements.

Grades

Only letter grades are given to evaluate a student's progress. The following definitions of letter grades are applicable:

"A"	Superior
"B"	Very Good
"C"	Satisfactory; Acceptable
"D"	Marginal; Passing
"F"	Unsatisfactory
"P"	Grade assigned in pass/fail courses that do not carry credit hours to designate passing performance.
"S"	Grade assigned in pass/fail courses that carry credit hours to designate that a grade of "A", "B" or "C" has been earned and credit has been awarded.
"U"	Grade assigned in pass/fail courses and in ENGL 101 to designate that

a grade of "D" or "F" has been earned and no credit has been awarded.

"W" Withdrawal from a course prior to the official deadline. After that time, students will receive the grade of "F" should they fail to complete the course or complete it unsuccessfully. Under extenuating circumstances, the grade of "W" may be awarded after the official deadline with the recommendation of the instructor and the concurrence of the Associate Provost. Supporting evidence is the responsibility of the student and must be submitted in writing to the Associate Provost.

"I" An Incomplete is awarded when course requirements have been very nearly met but for authorized reasons (illness, injury, family emergency, etc.) cannot be completed during the current semester. To be eligible for the grade of "I," students must be passing at the time they are forced to terminate their participation in the course. Students who are not passing at the time they are forced to terminate their participation will receive the grade of "F" in the course. The grade of "I" must be removed within the first thirty class days of the next full semester, or the "I" becomes an "F." The summer session will not be considered a semester in this case. Under extenuating circumstances, an extension may be awarded by the Associate Provost with the recommendation of the instructor. The removal of the Incomplete is the responsibility of the student. Students may not enroll in a course in which they currently have an "I." A student is not eligible for Dean's List or Gold Star awards until Incompletes are removed.

"IP" Grade assigned for courses in which requirements are not expected to be met in one academic term. The grade of "IP" must be removed in the next full semester, or the "IP" becomes an "F." The summer session will not be considered a semester in this case. Under extenuating circumstances, an extension may be awarded by the Associate Provost with the recommendation of the instructor. The removal of the "IP" is the responsibility of the student. Students may not enroll in a course in which they currently have an "IP." A student is not eligible for Dean's List or Gold Star awards until grades of "IP" is removed.

Should a student fail to complete a semester or summer session for any reason, the grade in each course in which the student is then enrolled shall be "F," "I," or "W" as determined by the individual faculty member in consultation with the Associate Provost.

No numerical symbol, bracket, or percentage is assigned the equivalent of any grade. Arbitrary distribution of grades according to some formula or curve is not permitted. However, by means of departmental supervision and consultation among instructors, every effort is made to obtain consistent grading standards within the department.

End of the semester grade reports and midterm progress reports are made available electronically on PAWS (Private Access Web System).

Grade-Point Ratio Computation

For purposes of ascertaining a grade-point ratio, grades are weighted as follows:

Grade	**Quality-Points Per Semester Hour**
A	4
B	3
C	2
D	1
F, I, IP, W, P, S, U	0

The grade-point ratio for any semester is determined by dividing the total number of quality points earned by the total number of hours for which grades of A, B, C, D, or F were received.

The cumulative grade-point ratio on which graduation, academic probation, and academic discharge are based is determined by dividing the number of quality points earned at The Citadel by the number of quality hours attempted at The Citadel. For this purpose, the number of quality hours includes *all credit hours attempted* at The Citadel for which grades of A, B, C, D, or F were received. The number of quality points earned includes *all* quality points associated with quality hours earned at The Citadel. The Citadel does not recognize plus and minus grades in undergraduate courses.

Academic Awards

The Dean's List is a recognition given for the work in a semester to those students registered for 12 or more semester hours whose grade-point ratio is 3.200 or higher, with no grade of I and no grade below C. The medal is worn on the cadet uniform during the following semester.

Gold Stars are awarded to those students on the Dean's List who have made a grade-point ratio of 3.700 or higher for the work of a semester. Stars are worn on the cadet uniform during the following semester.

Pass-Fail

Juniors and seniors with cumulative grade-point ratios of 2.00 or higher may take elective courses on a Pass-Fail option. Normally no more than one course may be taken under this option each semester, and no more than four courses taken under this option may be used to meet graduation requirements. Students may not change their decision to take a course on the Pass-Fail basis after the first two weeks of the term. Courses taken Pass-Fail carry graduation credit, but no quality points are awarded. Such courses are not included in GPR computations except in determining the First and Second Honor Graduates of the graduating cadet class.

Instructors report grades as usual, A through F. The Registrar's Office translates an "A," "B," or "C" as an "S" (meaning "satisfactory, credit awarded"). Grades of "D" or "F" are translated as "U" (meaning "unsatisfactory, no credit awarded").

Cadets who are taking a course under the Pass-Fail option and who wish to be considered for Dean's List or Gold Star honors must satisfactorily complete the Pass-Fail course and must earn the appropriate GPR on 12 or more semester hours in addition to the Pass-Fail course.

In determining the GPR for the position of First and Second Honor Graduates, courses taken under the Pass-Fail option will be included.

Students desiring to take a course on the Pass-Fail option should contact the Registrar's Office.

Accommodations for Students with Documented Disabilities

The Director of the Office of Access Services, Instruction, and Support (OASIS) is responsible for determining if a student has a documented disability and for determining appropriate accommodations. Students who feel they may have a disability must identify themselves to the Director of OASIS who will inform the student of the documentation on which a disability is based. If the Director determines that a disability warrants substitutions for courses required in the areas of foreign language and/or mathematics, all grades of "F" earned in previously completed courses in that discipline will be changed to "U" and will not be included in computing the student's GPR. Grades of A, B, C, or D in previously completed courses in that discipline will not be altered.

Audit Status

Any student who is eligible to enroll in a particular course may, with the approval of the instructor and the Registrar, audit that course for no credit. There will be no additional charge if the student is enrolled for credit in courses totaling 12 or more hours. For students taking fewer than 12 credit hours, registration fees and 100 percent of the tuition for the course will be assessed. The student may not change the decision to take the course on the audit basis rather than for credit after the first two weeks of the term. Grades will not be given for courses taken in audit status.

Change of Grade

After grades in a course have been submitted to the Registrar's Office, a change of grade will be considered only in cases of instructor error. The change of grade must be made within one month after the beginning of the next semester following the recording of the grade and must be approved by the head of the instructor's department and by the Associate Provost. A grade change may not be based on work submitted after final grades have been submitted.

Taking or Repeating Courses to Improve the GPR

A student may not take or repeat a course which is taught at a lower level than or serves as a prerequisite for a course which the student has already completed.

Courses may be repeated under the following conditions:

1. No course may be repeated once a grade of "B" or higher has been earned.
2. If a course is repeated, the last grade of record is used to determine whether course requirements for graduation have been met.
3. If a previously passed course is repeated, the hours may be used only once toward meeting requirements for total hours passed.
4. A transfer course may be repeated to improve a GPR only if the grade of "C" or higher was earned at the transfer institution.
5. All grades from repeated courses are included in computing the student's grade-point ratio.

Transfer Credits

Normally, only courses taken at an accredited institution which are comparable in content and credit hours to specific courses offered by The Citadel and in which grades of "C" or better have been earned will be considered for transfer. To ensure that courses taken away from The Citadel will be accepted for transfer, students *must* obtain written, prior approval through the Office of the Registrar. Courses previously passed at The Citadel will not be accepted for transfer. However, the dean of the school or head of the department in which the student is majoring may accept for transfer to meet General Elective credits courses that are not offered by The Citadel but which are considered to be worthy of credit as electives and in which grades of "C" or higher have been earned. The appropriate deans or department heads have responsibility for considering all transfer courses that are comparable to courses offered by The Citadel. Grades earned in courses transferred from another college will not be computed in the student's grade-point ratio at The Citadel. All transcripts sent from another college to The Citadel become the property of The Citadel and cannot be issued to the student or a third party.

Cadets who have been given Academic or Conduct Discharges from The Citadel or who leave The Citadel while their conduct status is in question may not enroll in courses at The Citadel during that period of discharge nor may they transfer back to The Citadel courses taken during that period of discharge. Cadets who have resigned in lieu of a conduct discharge may not transfer any courses to

The Citadel. Cadets who have been discharged for reasons other than academics or conduct may transfer back to The Citadel no more than four (4) pre-approved courses taken during that period of discharge.

All transfer credits are provisional. If a department determines within a reasonable period of time after classes begin that the student is not prepared to take a course for which the transferred course is a prerequisite, the allowance of credit is withdrawn, and the student must take the prerequisite course at The Citadel.

During the fall and spring semesters, a cadet may not take a course offered at another institution or a course offered through the College of Graduate and Professional Studies

Maymester and Summer School

The Citadel offers a Maymester, two day summer sessions, and two evening summer sessions. Over a summer, a student will not normally be permitted to enroll at The Citadel or transfer in from another accredited institution more than four courses and associated labs. If, however, the student is enrolled in Maymester and two summer sessions, a maximum of five courses and associated labs may be taken. The maximum load allowed in Maymester is one course; the maximum allowed in each session of summer school is two courses and associated labs. As with all transfer courses, prior approval is required for transfer of summer courses taken at another accredited institution.

Class Attendance Policy

The cornerstone of undergraduate education is communication between the teacher and the learner, and at The Citadel, class attendance is mandatory. Students may, however, need to miss class for authorized reasons—athletic events, academic travel, special ceremonies, guard duties, etc. Illness and personal emergencies may also cause students to be absent for legitimate reasons. Should it be necessary to miss a class for any reason, the student will, unless circumstances preclude it, notify the professor in advance and will be responsible for any material missed. Scheduled tests and laboratories take precedence over all other college duties or activities.

Absences, whether excused or unexcused, in excess of 20% of the meetings of a particular course can, at the discretion of the professor, result in a grade of "F" in the course. In such cases, the attendance record kept by the professor is official.

As soon as a determination has been made that a grade of "F" for excessive absences is warranted, the instructor will notify the Associate Provost, and the student will be assigned an "F." If, as a result of this action, the total hours carried by a full-time student drops below 12 credit hours, the student is subject to immediate discharge from the College unless there are extenuating circumstances. Such circumstances must be presented in writing to the Associate Provost.

When the number of unexcused absences reaches 7, the student and his or her parents will be issued a warning by the Associate Provost that continued disregard of the academic policy requiring class attendance will result in an academic discharge from the College. After 14 unexcused absences in any semester, the student will be permitted to complete the current semester, but will be academically discharged from the College for the following semester. Graduating seniors who accumulate 14 unexcused class absences in the spring semester will not be permitted to participate in the May Commencement.

Final Examinations

Examinations are required at the end of each semester. Examinations will be given at the assigned time. If a faculty member has more than one section of the same course, students may, with the permission of the faculty member and providing that there is no conflict, take the final examination with another section.

Since no scheduling conflicts are possible, make-up examinations should not be necessary. Any examination which is missed due to an emergency should be rescheduled after the regularly scheduled examination period but not during a Reading Period, during ESP, or on a Sunday. If rescheduling is not possible prior to the deadline for submission of final grades, the instructor should award the student an "I." Conflicts resulting from a student's travel arrangements do not constitute an emergency and do not justify a make-up examination. Any exception to these policies must be requested in writing by the student and concurred in by the instructor and the Associate Provost.

The final examination schedule is published each semester on The Citadel web page.

Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the appropriate program of study in chemistry, criminal justice, English, French, German, history, mathematics, political science, psychology, or Spanish. The Bachelor of Science degree is conferred upon satisfactory completion of the appropriate program of study in biology; chemistry; computer science; education; health, exercise, and sport science; mathematics; or physics.

Graduates in Business Administration receive the degree of Bachelor of Science in Business Administratin.

Graduates in Civil Engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in Electrical Engineering receive the degree of Bachelor of Science in Electrical Engineering.

Academic Requirements for Graduation

To graduate, a student must complete one of the major courses of study outlined in the catalog of record and must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned at The Citadel. In addition, each student must achieve a minimum grade-point ratio of 2.000 based on all quality hours attempted and all quality points earned in major course work at The Citadel.

Students majoring in education or in the teaching track of health, exercise and sport science must achieve a cumulative grade-point ratio of at least 2.500; a grade-point ratio of at least 2.500 on all professional education courses; and grade-point ratio of at least 2.500 on all teaching field course work.

If a student is pursuing a minor, a grade-point ratio of 2.000 must be achieved in all course work completed in that minor.

To be eligible for graduation, all students, including transfer students from other colleges, are required to earn at The Citadel a minimum of one-half the semester hours prescribed for their major course of study.

To ensure that the work in the major is current, a cadet must complete at least 30 of the final 37 credit hours within five (5) years of meeting degree requirements. Cadets who have met overall grade-point ratio, major course work grade-point ratio, and teaching field grade-point ratio requirements and who are conduct proficient but who have not completed all course requirements for graduation may take not more than two courses totaling 7 semester hours at another institution for transfer to The Citadel in order to complete degree requirements. Prior approval of these courses is mandatory.

In addition to the formal academic credits required for graduation, the candidate must have satisfied all disciplinary and physical fitness requirements. Recommendations for graduation are made by the Academic Board to the Board of Visitors, which in turn awards appropriate degrees.

Cadet Requirements for Graduation

A cadet who incurs punishment that would extend beyond commencement or who fails to complete physical fitness requirements successfully will not be permitted to graduate or participate in commencement exercises until such punishments have been served or otherwise disposed of and physical fitness requirements have been completed to the satisfaction of the Commandant of Cadets.

Cadet Requirements for Participation in Commencement Exercises

Cadets who have not completed all graduation requirements may participate in the May Commencement if the following conditions are met:

1. All Grade Point Ratio requirements have been met. That is, the cumulative and major Grade Point Ratios must be at least 2.000. For Education majors

and Physical Education (Teaching Track) majors, the cumulative and major Grade Point Ratios must be at least 2.500, and the GPR in the Teaching Field must be at least 2.500.
2. The cadet must be no more than 17 credit hours short of meeting degree requirements. A plan must be presented to the Associate Provost documenting completion of the remaining hours.
3. The cadet must be cleared by the Office of the Treasurer.
4. The cadet who has incurred punishments that will extend beyond graduation or who fails to meet physical fitness requirements successfully will not be permitted to participate in commencement exercises until such punishments have been served or otherwise disposed of and physical fitness requirements have been completed to the satisfaction of the Commandant.
5. All ROTC and RPED requirements have been met.

Commencement Honors

Annually, the Board of Visitors recognizes the two top graduates of the Corps of Cadets by presenting at Commencement the David Shingler Spell Honor Graduate Awards, honoring David Shingler Spell, Class of 1950. The First Honor Graduate will receive the traditional Scholarship Medal and both the First and Second Honor Graduates will receive an appropriately inscribed plaque and a stipend to be used for educational expenses at the graduate level or at the discretion of the recipient. These honors are awarded to the cadet graduates whose grade-point ratios at The Citadel are highest and second highest among the graduating cadet class. Awards are restricted to graduates who have earned (and are using to satsify graduation requirements) a minimum of 90 semester hours at The Citadel. In determining the grade point ratio for the First and Second Honor Graduates, the Registrar will include courses taken under the Pass-Fail option.

To be eligible to graduate with honors and to be eligible for departmental honors, a student must have earned at The Citadel at least half of the semester hours required in the major course of study.

A degree *summa cum laude* is awarded to those students in the graduating class who have achieved a grade point ratio of 3.900-4.000.

A degree *magna cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.700-3.899.

A degree *cum laude* is awarded to those students in the graduating class who have achieved a grade-point ratio of 3.500-3.699.

School/Departmental Honors are awarded on the recommendation of deans/ department heads to those students of the graduating class who have earned a grade-point ratio of 3.500 or better in at least 36 hours of work in the major completed at The Citadel in their major.

ROTC Requirements

The ROTC requirement for cadets serves two purposes. First, ROTC course work plays a major role in The Citadel's mission to educate and prepare graduates to become principled leaders in all walks of life. Second, ROTC course work is an essential component of the criteria to receive a commission in one of the armed forces. All cadets are, therefore, required to enroll in and pass an ROTC course for every semester during which they are enrolled at The Citadel or until they have completed eight semesters or met graduation requirements. If extenuating circumstances beyond the control of the cadet require that he/she withdraw or not register for ROTC, the cadet who is pursuing or may wish to pursue a commission must have the permission of the head of that ROTC Detachment. The cadet who is not pursuing a commission must have the permission of the academic advisor and the Associate Provost. Cadets who miss or fail an ROTC class must meet that requirement in order to graduate. When cadets are making up a missed ROTC requirement or changing to another ROTC, they are not, without the permission of the head of the ROTC Detachment, permitted to enroll in an ROTC class at a level lower than their academic class. For example, a member of the senior class who wishes to change to another ROTC must enroll in a senior-level course in the new ROTC unless the head of the ROTC Detachment authorizes the enrollment in a lower level course.

Upon the recommendation of the head of the appropriate ROTC department and with concurrence of the Associate Provost, training experiences may be accepted in lieu of ROTC course work. When approved, the designated ROTC courses will be recorded on the student's Citadel transcript as exempted military credits.

ROTC classes may not be used to satisfy elective requirements in any course of study.

Transfer Between ROTC Programs

Cadets who are pursuing a commission in one ROTC program and wish to pursue a commission in another ROTC program must have the approval of the head of the ROTC program they are leaving and the head of the ROTC program they wish to join. Cadets who wish to move from one ROTC program to another but do not wish to pursue a commission must have the approval of the academic advisor and the Associate Provost. A change in ROTC program does not reduce the number of semesters of ROTC required for graduation.

Non-cadet Enrollment in ROTC

Non-cadets are not permitted to enroll in ROTC classes unless they meet all the following conditions:

1. The individual must be on active duty and on orders as a participant in a commissioning program for one of the armed services.
2. The individual must be accepted as a degree-seeking student in the day program of The Citadel.

3. The individual must be enrolled as a full-time student in courses in the day program of The Citadel.
4. The individual must be provided leadership experiences outside the context of the Corps of Cadets.
5. ROTC classes will fulfill no degree requirements in a degree program of a non-cadet.
6. The individual must be in uniform while on campus.

Computer Competency Requirements

Cadets are required to demonstrate computer competency either through completing an approved computer science course (CSCI 110, CIVL 102, or ELEC 104) or by passing the Computer Competency Test offered by Information Technology Services. The completion of this requirement will be verified before the academic classification of 2A (first semester, junior status) is approved.

Fine Arts Requirement

Freshmen and Sophomores are required to attend at least one approved Fine Arts performance each semester. The completion of this requirement will be verified before the academic classification of 2A (first semester, junior status) is approved.

Course Load Requirements

A full-time student must be enrolled throughout each semester in course work totaling at least 12 credit hours. A cadet must be a full-time student. Any cadet who drops below the 12 credit hour minimum at any time during a semester is subject to discharge, unless there are extremely extenuating circumstances. Such circumstances must be presented in writing to the Associate Provost. Students and their parents should be aware that carrying fewer than 12 credit hours may affect insurance coverage with some insurance companies and may also affect eligibility for financial aid.

Course Overload

The maximum course load (credit hours) which will be approved for either fall or spring semester is normally 22.

Overloads may be requested in writing to the Associate Provost.

Course Substitutions

Course substitutions are made only when justified by extenuating circumstances. Such circumstances must be presented in writing by the student, and the requested substitution must have the support of the faculty advisor, the associate dean or department head, and the Associate Provost. Forms for requesting course substitutions are available in the Registrar's Office.

Combining Courses

Courses may be combined to meet a *maximum of one general elective* requirement under the following circumstances:

1. The courses to be combined must be offered by the same department and must be related in some way.
2. The associate dean or department head of the student's major school or department must provide a recommendation and rationale for combining the courses.
3. The Associate Provost must grant final approval for the combining of courses.

Graduate Courses

Students pursuing an undergraduate degree will not be permitted to enroll in graduate courses.

Change of Academic Major

Students who wish to change their major should consult with their academic advisors as well as with the associate dean or department head offering the new major. Forms for requesting a change of academic major are available in the Registrar's Office.

Pursuing A Double Major

Under certain circumstances, a student may wish to pursue two different majors concurrently within the *same* baccalaureate degree. This will be permitted under the following conditions:

1. Students must declare their intentions to the Registrar no later than the fall semester of the junior year.
2. Both majors must be offered under the same baccalaureate degree.
3. Students must complete all requirements for each major.
4. Students, in addition to meeting a minimum overall grade-point ratio, must achieve the minimum grade-point ratio requirements of *each* major.
5. Requirements for both majors must be completed concurrently.

A student who has met these requirements will have both majors indicated on the transcript.

Pursuing A Second Baccalaureate Degree

Under certain circumstances, a student may wish to pursue two *different* baccalaureate degrees concurrently. This will be allowed under the following conditions:

1. The student must complete all requirements of each degree.
2. The student is normally expected to complete requirements for the second degree while pursuing the initial undergraduate degree.
3. Any remaining requirements after the initial degree has been completed may be addressed in The Citadel's summer school in the College of Graduate and Professional Studies or in Day Student Status.

Academic Minor

A minor is defined as a course of study that enables a student to make an inquiry into a single discipline, or to investigate a particular topic across the boundaries of two or more disciplines. In either case, the minor is not simply a specified number of credit hours, but a well-defined program.

A minor should complement the student's major and not simply expand it with more courses in the same field. For this reason, students may not ordinarily pursue both a major and minor in the same discipline. However, in the case where a discrete topical minor is administered by the student's major department, an exception may be in order.

A minor consists of an ordered series of courses totalling at least 15 credit hours, at least 12 of which must be beyond Core Curriculum and courses specified for major or other minor requirements and at least 6 of which must be at the 300/400 level. At least 9 hours of the minor must be organized in a logical sequence of required courses which provides general direction for the student's study. At least one course in the minor must be completed at The Citadel or in a Citadel Study Abroad program.

The student must earn a grade-point ratio of at least 2.000 on all course work completed in the minor. Requirements for the minor must be completed concurrently with requirements for the student's major. A student who meets all requirements for an approved minor will have both the major and minor indicated on the transcript. *Requirements for each minor are presented in the academic school/department sections of this catalog.*

Internships

Academic internships offer the opportunity for students to apply academic learning to practical situations.

Normally, only juniors and seniors are eligible for academic internships. A minimum cumulative GPR of 2.5 is preferred. Exceptions to this requirement will be considered by the internship advisor and the department head or associate dean.

To receive course credit, the student should pursue an internship that is clearly related to his or her major course of study and/or career interest. If the internship is not offered by the student's school or major department, the student must have successfully completed appropriate preparatory course work.

To receive three semester hours of credit, each intern will work a minimum of 50 hours over the course of the semester, to include activities on site at the internship agency and regular meetings with the internship advisor. Each student intern will be required to maintain an internship journal or diary containing a detailed record of internship activities and will prepare a formal paper and/or a formal oral presentation based on a substantive topic related to the internship experience.

A student may earn a maximum of six semester hours credit from internship courses to apply to a degree program at The Citadel.

Academic Classifications

Academic classifications of 4A (first semester freshman) through 3B (second semester sophomore) are based strictly on hours earned. For example, to be classified 3A (first semester sophomore), the cadet's total hours earned must be no less than 8 fewer than the total hours required through the spring semester of the sophomore year of the major course of study. A table of credit hours required for each academic classification for each major is provided on The Citadel webpage under "Registrar."

To be academically eligible to be classified as a first semester junior (2A), a cadet must have completed the Fine Arts and computer competency requirements in addition to the requirement for hours earned.

To be academically eligible to be classified as a first semester senior (1A), a cadet must have earned a sufficient number of hours to be no more than 8 hours short of the number of hours required in the major course of study through the spring semester of the junior year and must have successfully completed the following Core Curriculum course work:

Four semesters of English (ENGL 101/102/201 and ENGL 202 or 215 or 218 or 219)
Two semesters of mathematics (MATH 104/105, MATH 104/106 MATH105/106, MATH 106/107 or MATH 131/132)
History 103/104 or History 105/106
Two semesters of the same language
Two semesters of the same science, both lecture and lab.

Academic classification is used by the Office of Financial Aid to determine loan eligibility and by the Commandant's Office to determine room assignments, the appropriate class numeral, class privileges, and eligibility to hold cadet rank.

Class Privileges

Cadets are considered for privileges based on their Academic Classifications. To be eligible to receive class privileges, a cadet must not be on Academic Probation and must be both Conduct and Physically Proficient.

Ordering and Receiving a Class Ring

While any rising senior cadet may in the spring of the junior year be measured for and order a class ring, to be eligible to receive a class ring, a cadet must meet these two conditions: (1) have an academic classification of 1A and (2) have a cumulative GPR of at least 2.000. If a cadet fails to meet requirements to receive the ring with his/her class, the Alumni Association will normally hold the ring until the end of the following spring semester. If the cadet has not met requirements to receive the ring by that time, it will be returned to the manufacturer. The cadet may not order the ring again until all requirements to receive the ring have been met.

These are minimum requirements and will not be waived. Students should see the Registrar to confirm eligibility.

Academic Criteria for Continuance

In order to be eligible to continue at The Citadel, a student must meet minimum standards for hours earned at The Citadel or properly transferred from another accredited institution and cumulative grade-point ratio maintained. These criteria are assessed initially after the cadet's second semester at The Citadel and then at the end of each two-semester period.

Credits earned through AP or course work taken by an entering freshman in the summer prior to initial matriculation may not be used toward meeting the minimum standard for hours earned in an academic year. Although The Citadel will notify students who are deficient in either or both areas, it is the responsibility of the student to ensure that these criteria are met. To avoid academic discharge, a student must meet *both* hour and GPR requirements concurrently either at the end of the fall semester, at the end of the spring semester, or in August, as appropriate.

A full-time student (one carrying at least 12 credit hours each semester) must pass at least 24 semester hours in each 12-month period after admission or readmission. *If a previously passed course is repeated, the hours may be used only once toward meeting requirements for hours passed.*

Part-time students must pass 50% of the hours attempted.

Each student must maintain a minimum cumulative grade-point ratio as prescribed in the table below. This grade-point ratio is calculated as described earlier in this section.

The column labeled "Total Hours" includes 1) all credits attempted for which a grade of "A," "B," "C," "D," or "F" was received at The Citadel, 2) course work transferred from other colleges, and 3) courses taken Pass-Fail or in which the grade of "U" was earned.

Total Hours (Quality Hours Plus Transfer & Pass/Fail Hours)	**Grade-Point Ratio for Continuance on probation**
0-39	1.300
40-69	1.500
70-99	1.700
100 & above	1.900

This table shows the minimum academic progress a student must make to continue at the College and to avoid academic discharge.

For the purpose of determining academic probation, criteria for continuance, dean's list, gold stars, graduation, and other academic matters, the grade-point ratio will be computed to three decimal places.

Academic Probation

A student is placed on academic probation for any semester when the cumulative grade-point ratio based on courses taken at The Citadel fails to meet the requirements for continuance without probation as outlined in the following table. A student will be removed from academic probation after the semester in which the cumulative grade-point ratio meets the requirements set forth in the following the table.

Total Hours (Quality Hours Plus Transfer & Pass/Fail Hours)	**Grade-Point Ratio for Continuance without probation**
0-39	1.700
40-69	1.800
70-99	1.900
100 & above	2.000

Jump Start Retention and Academic Enrichment Program

Freshmen and sophomores who are on academic probation are required to participate in the Jump Start Retention and Academic Enhancement Program. This Program consists of three or four Sunday afternoon sessions from 1400 to 1800 and sessions from 1900 to 2100 each Tuesday and Thursday. These required study sessions promote effective time management and discourage students from procrastination. Special attention is given to learning strategies enrichment activities as well as individual tutorials in writing.

Academic Discharge

A cadet's academic record will be subject to formal review for purposes of academic discharge at the end of the second semester after initial matriculation at The Citadel. During these two semesters and the summer sessions after initial matriculation, the cadet must have earned at least 24 credit hours and must at the time of review meet GPR requirements for continuance. If these requirements are not met concurrently at that time, the cadet will be discharged for academic deficiencies.

Academic assessment for the purpose of academic discharge is conducted at the end of each two-semester period, and the associated summer sessions, after the student is admitted or readmitted. Under the academic discharge policy, cadets may be discharged for academic deficiencies in January or in August of each year. Credits completed while a student is on academic discharge will not normally be accepted for transfer to The Citadel. Exceptions to this policy must have the approval of the Associate Provost.

Summer session work cannot make students ineligible to enroll in the following fall semester, if they were eligible for enrollment at the end of the previous spring semester.

Minimum grade-point ratios for the various categories are as shown in the previous sections; however, the minimum GPR required will not be raised as a result of summer school work. That is, students moving from one category to the next higher category as a result of credit hours earned in summer school at The Citadel or elsewhere will be required to meet the GPR minimum of the lower category of credit hours for continuance in the following fall term.

Students who voluntarily withdraw at times other than January or August or who are discharged for other than academic reasons will have their academic status assessed upon application for readmission.

When the number of unexcused absences reaches 7, the student and his or her parents will be issued a warning by the Associate Provost that continued disregard of the academic policy requiring class attendance will result in an academic discharge from the College. If the number of unexcused absences reaches 15, the student will be permitted to complete the current semester, but will be academically discharged from the College for the following semester. Graduating seniors who accumulate 15 unexcused class absences in the spring semester will not be permitted to participate in the May Commencement.

Readmission

A student who is discharged for academic reasons for the first time may apply for readmission after being out of school for one semester. Summer school does not constitute a semester in this instance. Students who are discharged for academic or disciplinary reasons may not, during the period of discharge, take courses for transfer to The Citadel. The deadline for the receipt of an application for readmission for the spring term is October 15 and for the fall term is June 15.

In addition to any specific readmission requirements stated at the time of discharge, applicants for readmission to the South Carolina Corps of Cadets must meet the personal and physical fitness requirements for initial admission. These include the following:

a. Applicants for readmission must meet the U.S. Army standard for height and weight and be physically qualified as determined by the college physician.
b. Applicants for readmission may not be married.
c. Applicants for readmission may not have a dependent biological child.
d. Applicants must not have a record of conviction of a criminal offense showing poor moral character.

If approved for readmission after an academic discharge, the student will be readmitted on academic probation.

Second Academic Discharge

If a student fails for a second time to meet minimum academic criteria for continuance, the Associate Provost will review the academic record and any extenuating circumstances the student wishes to present in writing. Based on this review and in consultation with the faculty advisor and the department head or Associate Dean, the Associate Provost will determine the conditions under which the student will be permitted to continue or will award the student a second academic discharge. A student discharged a second time for academic reasons will not normally be considered for readmission.

Conduct Discharge

Cadets who have been suspended or dismissed or who leave the College with a disciplinary board pending are not eligible to attend any undergraduate class at The Citadel—day, evening, or summer—or to transfer credits back to The Citadel for any courses taken during the period of discharge.

Day Student Status

No civilian students are permitted to take classes with the Corps of Cadets.

Cadets will normally remain in the Corps of Cadets until degree requirements have been met. Cadets who have completed eight semesters in the Corps of Cadets, all ROTC requirements, and all required physical education courses and have no outstanding punishments or have a plan approved by the Commandant for completing remaining punishments may apply for Day Student status through the Office of the Registrar. Transfer of credit from other institutions is severely limited while in Day Student status.

If Day Student status is approved, the student must live off campus and may attend day classes with the Corps of Cadets or evening undergraduate classes in the College of Graduate and Professional Studies. While on campus in Day Student status, students will wear civilian clothes, but their attire is expected to be compatible with the military environment established by the uniformed Corps of Cadets.

For day Students, the following specific dress code is in force:

1. Regulations pertaining to body piercing and tattoos are the same as those for the members of the Corps of Cadets.
2. A broken uniform is unattractive anywhere, but it is especially unsuited for a military college or campus or classroom. Portions of cadet uniforms are not, therefore, to be worn by non-cadets.
3. Hair will be neatly trimmed and styled; as will mustaches and sideburns if they are worn. Men will be permitted to wear beards only when required to do so for medical reasons, which must be explained in writing by a physician and submitted to the Associate Provost.
4. Students will wear business attire when attending formal hops and similar occasions when the members of the Corps of Cadets are required to appear in full dress or white uniform.

5. Any student who is not in compliance with minimum standards for personal appearance will be required to leave campus until discrepancies are corrected. Repeated offences may result in discharge from the college.

Student Academic Grievances

The academic grievance process of the college is reserved for the most serious alleged offenses. These matters deal not with differences of opinion, but with violations of due process; denial of individual rights; or unequal treatment or discrimination based on sex, race, color, or national orgin. Students who feel that they have an academic grievance are directed first to confer with the instuctor or other individual(s) involved. Where this does not result in satisfaction or if this step is not feasible, the student should present the grievance in writing to the lowest appropriate level not involved in the grievance, department head or associate dean.

If the matter remains unresolved, the student may present the grievance and the attempted solution in writing to the appropriate dean. If deemed appropriate, the dean may appoint a review committee consisting of three faculty members, with one designated as chair and a student in good standing from the same student category as the grieving student. This committee shall have the authority to interview individuals who may have information pertaining to the grievance and to request records and materials pertaining to the grievance. In a grievance procedure, all employees and students are obligated to provide requested information to the dean/associate dean/department head, or review committee. The committee shall forward its findings and recommendations to the convening dean who shall decide the case. The student may appeal that decision to the Provost who has the authority to settle all student grievances.

English Fluency Policy

In accordance with the laws of South Carolina, The Citadel ensures the English fluency of its teaching faculty through a two-stage review process.

1. During the interview process, each applicant will make an oral presentation before a group consisting of faculty members and students. Using the included form, each participant will evaluate the candidate's English fluency and clarity of presentation. These evaluations will be a major factor in the selection process, and should a candidate who is ultimately selected be deemed by this evaluation to have a language problem, the extent of this problem, the support to be provided the candidate by the College in addressing this problem, and the expectations for improvement in English fluency will all be clearly stated in the offer of employment.
2. Should the English fluency of a member of the faculty be challenged by a student, standard procedures for student academic grievances as described above will be followed. If a review committee is called for the native language one of the faculty members will not be English.

Ownership of Intellectual Property

Preamble

The Citadel has among its primary purposes teaching, research, and the expansion and dissemination of knowledge. Products of these endeavors include the development and use of intellectual property. It is the policy of the College that its faculty, staff, and students carry out their scholarly work in an open and free atmosphere that encourages publication and creation of such works without constraint but consistent with applicable laws and College policy. This policy *will be* in accord with the guidelines and criteria published in The American Association of University Professors' "Statement of Copyright" (*Policy Documents and Reports.* Ninth Edition, 2001, or subsequent editions).

Definitions

Directed Works are defined as those specifically funded or created at the direction of the College, and which may or may not include exceptional use of College resources. They are distinguished from non-directed works, which are pedagogical, scholarly, literary, or aesthetic works resulting from non-directed effort.

Exceptional Use of College Resources is defined as the provision of resources or support by the College for the creation of a work that is of a degree or nature not routinely made available to College employees. Sabbatical leaves, faculty research grants, and faculty development grants awarded by the College upon the recommendation of the Research, Faculty Development, or Sabbaticals Committees, although competitive, are routinely available to the faculty and are therefore deemed non-exceptional unless specifically designated otherwise by agreement between the originator and the Provost.

Policy

Ownership of intellectual property will reside with the originator, whether a member of the faculty, a member of the staff, or a student, unless: (a) the property is created at the specific direction of the College; or (b) the originator has made exceptional use of College resources in creating it.

At the time when the work is directed by the College or at the time when the College makes exceptional resources available to the originator of intellectual property, the Provost and the originator will together determine ownership and will negotiate a written agreement concerning that property. These determinations will be made on a case-by-case basis.

Confidentiality of Student Records

The Citadel maintains and discloses information from student records in accordance with the provisions of the "Family Educational Rights and Privacy Act of 1974" (FERPA), as amended. This law requires that educational institutions maintain the confidentiality of student educational records. The Citadel accords its students all rights under the law. FERPA coverage applies to all educational records that contain a student's name, social security number, or other personally identifiable information, in whatever medium, to include electronic form.

No one outside of The Citadel shall have access to nor will the institution disclose any information from a student's educational records without the written consent of the student except in compliance with the provisions of Federal and State law. Educational records may be disclosed to personnel within the institution who have a legitimate educational interest, to parents of students who are dependents as defined by IRS standards, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, or, in an emergency, to persons in order to protect the health or safety of the student or others.

Within The Citadel community, only those members, individually or collectively, acting in the student's educational interests are allowed access to student educational records. These members include the Board of Visitors, Faculty, and personnel in the Offices of the President, Provost and Dean of the College, Associate Provost, Associate Dean of the College of Graduate and Professional Studies, Registrar, Vice President for Finance and Business Affairs, Director of Admissions, and Commandant. The Provost (for academic records) and the Commandant of Cadets (for disciplinary records) may give specific cadets, by virtue of their cadet duty position, limited access to the educational records of other cadets. These cadets must first attend a FERPA briefing and sign a Statement of Understanding before being provided access to other students' educational records.

Directory information about a student may be disclosed at the discretion of The Citadel without the consent of the student unless the student has notified the Registrar within two weeks of the beginning of the academic year (fall semester) that the student refuses to allow the disclosure of such information. Notice to maintain directory information as confidential must be given at the beginning of each academic year and is valid only for that year; therefore, any student desiring to keep directory information confidential must file notice each year.

Directory information includes student name, local and permanent address and telephone number, e-mail address, photograph, date and place of birth, major field of study, class schedule, full or part-time status, Dean's List and Gold Star List, ROTC branch, dates of acceptance and attendance, years in school, anticipated date of graduation, degrees and awards received, graduation honors, academic and military awards, the most recent previous educational agency or institution attended by the student, cadet company and rank, duty status, class absences status, participation in officially recognized activities and sports, weight and height of members of athletic teams, U.S. citizenship, extracurricular activities, and residency status.

A student has the right to inspect and review his/her individual educational records except for those records identified in Federal or State law, e.g., records of parents' financial status, the student's employment records, medical and psychological records (not available to anyone other than those providing treatment, but may be reviewed by another physician or psychologist of the student's/ patient's choice), etc. Access by the student to his/her educational record is to be granted promptly and no later than thirty days from the date of receipt of written request.

The student also has a right to file a complaint with the U.S. Department of Education concerning alleged failures by The Citadel to comply with the requirements of FERPA.

If the student considers his/her record to be faulty, he/she can request either a formal or informal hearing to have the record amended to ensure that it is not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.

As a result of the "Student's Right to Know and Campus Security Act," passed by the US Congress in 1990, The Citadel will as a matter of policy disclose to the alleged victim of any crime of violence the final results of any student disciplinary proceeding or faculty or staff disciplinary hearing conducted by The Citadel against the alleged perpetrator of such crime. Both the accuser and the accused shall be informed of the final outcome of any Citadel disciplinary proceeding based on an alleged sex offense. Compliance with the provisions of the "Crime Awareness and Campus Security Act" does not constitute a violation of the "Family Educational Rights and Privacy Act.'

On 6 July 2000, the U.S. Department of Education issued the following updates to FERPA which became effective on 1 August 2000: Alcohol or Drug Violations: Colleges may disclose to parents, **without a student's consent,** alcohol or drug violations of either the College's policies or local laws by students under 21 years of age. This disclosure may be to parents "without regard to whether or not the student is a dependent" under IRS Tax rules. The Citadel will notify parents based on the discretion of the Commandant of Cadets.

Disclosure to Courts: A section has been added to FERPA to allow disclosure to a court without obtaining the consent of the student if a parent or student has initiated legal action against the institution or if the institution has initiated legal action against the parent or student.

A copy of the "Family Educational Rights and Privacy Act of 1974," as amended, and details of The Citadel policy on maintaining and disclosing student records may be obtained from the Office of the Registrar.

STUDENT SUPPORT PROGRAMS, SERVICES, AND ACTIVITIES

The student support programs, services, and activities offered by The Citadel complement and support students' academic development by . . .

. . . promoting discipline, responsibility, character development, and self-confidence;
. . . equipping students with skills necessary for academic success;
. . . developing leadership skills;
. . . enhancing moral and spiritual development;
. . . increasing cultural awareness and the appreciation of diversity;
. . . encouraging students to become responsible professionals in their chosen fields; and
. . . providing activities that promote personal health and physical fitness.

The intent of the student support programs is to encourage the development and integration of personal values and habits that will remain with the individual for life.

Student Advisory and Counseling Services

Academic Faculty Advisor

Each student is assigned a faculty advisor who provides counsel concerning course selections and options within particular courses of study. Though students are encouraged to visit their advisors throughout the academic year, formal planning sessions are designated each semester during preregistration and registration.

Tactical Officer

Each cadet company is assigned a staff member or an active duty officer who is currently serving one of the ROTC detachments at The Citadel. This officer provides counsel concerning matters of cadet lifestyle and regulations, provides leadership training in cadet company areas, and supervises drill periods.

Company Academic Advisor

Each cadet company is assigned a specially chosen member of the faculty or staff who works closely with the company tactical officer and the cadet chain-of-command to ensure that academic and military requirements are compatible and that cadets are aware of academic resources and services available to them on the campus.

Prelaw and Premedical Advising Services

The Citadel provides counseling and guidance to all students who have an interest in attending law or medical school after graduation. Students interested in a law career should seek advice early in their college careers from the chair of the Prelaw Advisory Committee. Students interested in medicine and related fields should seek early advice from the chair of the Premedical Advisory Committee. Each committee is composed of faculty members from academic disciplines related to these professional fields.

Career Services

The Citadel Career Services Office has a primary mission of helping current students make well-reasoned career decisions and supporting them in these decisions. The first step in this process occurs in providing the FOCUS Career Evaluation and Exploration Program to incoming students, which helps students in selection of majors and in identification of career paths of greatest interest for further exploration.

The Career Services Office provides group and individualized instruction and assistance to students regarding career research, industry research, identification of potential employers of greatest interest and associated firm research, mentor matching, career search strategy development, information on potential employers in a wide variety of metropolitan areas, resume and academic portfolio development, interviewing skills, negotiating skills, and decision-making skills.

The Career Services Office coordinates annual Career Fairs, provides career planning presentations to classes at all levels, maintains postings of advertised positions, assists students in accessing unadvertised opportunities, coordinates an on-campus interviewing program for permanent positions, and also supports students seeking summer employment. A library of career-related reference materials and a computer lab are provided for student use. The office distributes a wide variety of career planning and career search information to students, including announcements of career-related events, position announcements, and interviewing opportunities.

Located at 573 Huger Street, the Career Services Office invites students to call, email, or visit to schedule an appointment to discuss their career interests.

Pastoral Counseling

Pastoral counseling is an important component in the overall design of The Citadel's advisory program. The Chaplain to the Corps of Cadets and the campus pastors are available to establish with students an ongoing pastoral relationship that includes dealing with life problems in the context of religious values. With the chaplain and campus pastors, students are assured of care, concern, and confidentiality, whatever their situation.

Counseling Center

The Citadel Counseling Center provides professional, confidential short-term counseling to currently enrolled students at no charge. Personal and substance abuse prevention counseling are available by appointment. In the event of an emergency, counselors are also available to provide crisis intervention without an appointment. In addition, the Counseling Center staff provides referrals for off-campus psychiatric evaluations and/or long-term counseling.

The Citadel Counseling Center provides individual assessment, including the administration and interpretation of personality and interest inventories. Students may complete these assessments in an effort to address personal or career concerns presented in individual counseling.

Group testing is also coordinated by The Citadel Counseling Center. As a Controlled Testing Center for the Psychological Corporation, the Counseling Center administers the Miller Analogies Test (MAT).

The Citadel Counseling Center is located at 203 Richardson Avenue behind Bond Hall. Students are encouraged to contact the Counseling Center directly to schedule appointments for counseling or assessment.

Alcohol and Substance Abuse Prevention Program (ASAPP)

The Alcohol and Substance Abuse Prevention Program (ASAPP) provides evaluation and assistance in the prevention, education, and treatment of alcohol and substance abuse. Strategies utilized include an in-depth alcohol and substance use evaluation, individual short-term counseling, video and reading material, an interactive computer program, an online alcohol education course, and appropriate referrals for long-term outpatient and inpatient treatment. These services, which are available to currently enrolled students, are aimed at reducing a student's risk for developing serious problems associated with the abuse of alcohol and other substances. In addition, any cadet who is mandated by the Commandant's Department to complete a minimum of two meetings with a counselor will receive an in-depth alcohol and substance use evaluation and recommendations for additional services are provided to the cadet as appropriate.

The Alcohol and Substance Abuse Prevention Program is coordinated by staff in The Citadel Counseling Center, which is located at 203 Richardson Avenue behind Bond Hall. Students are encouraged to contact the Counseling

Center directly to schedule appointments for individual counseling or for more information about alcohol and substance abuse prevention programs.

Instructional Support Services

Daniel Library

The primary mission of the Daniel Library is to provide the resources, services, and environment that support the teaching and research requirements of the college.

The Library is fully automated and a major component of the campus network, allowing campus-wide and off-campus access to all electronic resources. The Daniel Library provides organized access to carefully selected research and study resources via its website (www.citadel.edu/library). Resources include a web-based library catalog, full-text databases and citation indexes supporting all disciplines, and electronic reserves. Interlibrary loan and document delivery services are available to students at no cost. The Daniel Library collection consists of over 200,000 volumes, 89 online full-text and citation indexes, and over 12,000 electronic full text journals and print journal subscriptions. In addition, the Library holds 3500 audio and video recordings, 850 CD-ROM databases, 1400 music CDs, 175,000 microforms, 20,000 federal documents, and 1500 maps. The Daniel Library is a federal document depository library.

To enable students to make the best use of an array of resources and services available to them, the Library provides research instruction classes to instill information literacy skills of locating, evaluating, and effectively using information. In the required First Year Experience course, students learn to access Library resources, evaluate information for relevancy, accuracy, and level of scholarship, and incorporate appropriate information into research projects. Course-specific research classes focus on unique information needs of each student and address specific research requirements of each course. Special-topics seminars are held throughout the school year to introduce new databases, provide guidance on research issues, and help students and faculty effectively use library resources.

Daniel Library facilities provide individual and group study space, as well as areas for viewing videos and listening to CDs. Facilities also include a wireless network accessible with library laptops or student's personal laptops. All computers allow access to electronic resources and the Internet. Designated computers provide software for word processing, spreadsheets, databases, and presentations.

Daniel Library Friends sponsor a series of cultural events for the campus community throughout the school year. In partnership with the Department of

English, the Daniel Library twice yearly sponsors Patio Performances, showcasing original student literary works performed in the Library courtyard.

The Daniel Library is open seven days a week for a total of 87 hours, and Library faculty and staff are available to assist users during all operating hours.

Computing Resources

The Citadel provides its students superior computing resources, including a dozen computer labs located in classroom buildings and a small lab in each of the barracks. All labs are equipped with Gateway PCs and laser printers. There is no charge for using computer lab services, including printing.

Most of the college's 100 classrooms have ceiling-mounted multimedia projection and sound systems. The Multimedia Center helps students with graphics, computer presentations, and video projects.

The Citadel has a high-speed campuswide network called Citnet. Virtually every computer on campus is connected to Citnet, which in turn has a high-speed connection to the Internet.

Cadets are urged to bring a computer (preferably a Gateway PC) for use in their rooms, and more than 90 percent do. Every cadet is provided a direct connection to Citnet and the Internet. There is no charge for this service.

The Department of Information Technology Services provides repair services for Gateway computers and will help students connect other Windows-compatible PCs to Citnet.

The college recommends that students purchase Microsoft's Office Professional software. This package includes Word, Excel, PowerPoint, and Access, all of which are widely used at The Citadel. Students can save money and time by ordering a Gateway PC that has the academic version of Office Professional already installed.

All students are provided a Citadel email address, regardless of whether they have a computer in their room.

More information about computing at The Citadel is provided at http://www.citadel.edu/computing/. To ask a question, send an email message to computing@citadel.edu or call 1-843-953-HELP.

Writing and Learning Center

The Writing and Learning Center has a dual focus: the enhancement of writing skills and the development of learning strategies in the Citadel community. Special attention is given to the writing and learning skills of first-year students who attend individual tutorials and group workshops; however, upper classmen and graduate students have equal access to both the writing and learning strategies programs. Because of the interdependence of writing and learning styles, the Writing and Learning Center has parallel responsibilities to assist students in the development of learning strategies. Toward meeting student needs in these areas, the Center sponsors enrichment activities and assures its efforts are in concert with the objectives of the academic departments and the mission statement of The Citadel.

Office of Access Services, Instruction, and Support

The Citadel offers support services to students with disabilities. The goal of the Office of Access Services, Instruction, and Support (OASIS) is to assist students in becoming efficient and independent learners. The office provides individualized help in accommodations and one-on-one academic coaching in a private setting.

The office also provides services to promote academic success during Summer School sessions. Transition classes for all incoming first year students are given through the College Success Institute (CSI).

Office of Multicultural Student Services and International Studies

The Office of Multicultural Student Services and International Studies promotes an appreciation for diversity among students, faculty, and staff. Multicultural Student Services encourages an attitude that celebrates multi-ethnic perspectives of various cultures and backgrounds. Programming and activities sponsored by the office are designed to increase the involvement of minority students in extracurricular activities; to assist first year and transfer students with the transition into the Corps of Cadets; to enhance interaction and communication among all students; and to enable students of color to enhance contact with and pride in their cultural heritage. The office is also responsible for coordinating the college's Access and Equity program and the Higher Education Awareness Program.

Assistance is offered to students, faculty and staff who have concerns relating to race relations, campus diversity, or multicultural awareness. Resource materials including videos, study guides, and directories are available for use by cadet companies, classroom instructors, and clubs and organizations.

This office offers a variety of services for international and American students. The office provides freshmen orientation programs, immigration advising and assistance, and helps with personal and academic concerns for international students. The office further serves as a liason with embassies, acts as an advocate for international students with campus offices, organizes off-campus cultural programs, and sponsors international activities.

The office also provides a variety of study abroad opportunities for students who are interested in an overseas study experience. Students are encouraged to come to the office where they may view resource materials, receive guidance on availablel programs and receive assistance with study abroad application process.

Appointments may be made by individuals, or students may be referred by professors, staff members or cadet officers.

Religious Activities

College years are exciting times of growth and challenge, when a young person's faith and religious heritage are examined in the light of new experiences and perspectives. While college years may be marked by a "crisis of faith," they frequently are also marked by a deepening commitment to life-long religious values. The Chaplain, who also serves as the Director of Religious Activities, is committed to assisting in that deepening commitment.

Working closely with the Chaplain to the Corps of Cadets in the coordination of all religious activities are the Cadet Regimental Religious Officer and the Battalion Religious Officers. Additionally, the college is fortunate to have seventeen campus pastors or ministry directors representing Catholic, Orthodox, Jewish, Muslim and thirteen Protestant denominations and parachurch ministries. These leaders work together to maintain a strong religious foundation for the ethical and moral pillar, one of the four pillars in The Citadel's whole person concept. Faith group meetings are held each Monday evening and parachurch groups meet each Thursday evening for study, fellowship, and worship.

Campus Faith Groups:

African Methodist Episcopal
Baptist Collegiate Ministry
Catholic
Episcopal
Greek Orthodox Fellowship
Jewish Student Union
Latter Day Saints
Lutheran Student Movement
Muslim Student Association
Presbyterian Student Association: Presbyterian (PCUSA)
Reformed University Fellowship: Presbyterian (PCA)
Wesley Foundation: United Methodist

Parachurch Interdenominational Groups:

Campus Crusade for Christ
Campus Outreach
Full Gospel Business Men's Fellowship
Officers' Christian Fellowship
The Navigators

Campus Worship

The following three chapels on campus provide regularly scheduled services of worship for Episcopalians, Protestants, and Catholics, respectively: Saint Alban's Chapel, Summerall Chapel, and Blessed Sacrament Chapel.

The inscription on Summerall Chapel, "Remember Now Thy Creator in the Days of Thy Youth" (Ecclesiastes 12:1), becomes very important to cadets who need a source of strength beyond their personal means. In addition to regularly scheduled worship, Summerall Chapel is open daily for prayer, rest, and meditation.

Citadel Chapel Choirs

Three cadet chapel choirs enhance services of worship on campus. They are Christ the Divine Teacher Parish Choir, and two choirs within the Interdenominational Protestant Parish: the Chancel and Gospel Choirs. These three choirs combine for special events each year such as Parents' Day, Homecoming Sunday, the Christmas Candlelight Services, and Corps Anniversary Sunday.

Greater Issues Series

The Greater Issues Series presents two or more major addresses each academic year. The series was inaugurated by General Mark Clark in 1954 to enhance the preparation of Citadel cadets for roles as responsible members of our society. Since then, these addresses have brought to The Citadel an impressive group of distinguished speakers including Presidents of the United States, American and foreign dignitaries, scholars, diplomats, important military figures, and business leaders.

Fine Arts Series

Inaugurated in 1965, the Fine Arts Series has presented annually a wide variety of programs which have been both entertaining and culturally illuminating. All fourth-class and third-class cadets are required to attend one approved fine arts performance each semester.

Musical Organizations

The Citadel Regimental Band and Pipes provides music for concerts, parades, reviews, and other official ceremonies both on and off campus. Music for basketball games is provided by The Citadel Pep Band, a group of members from within the Regimental Band. The college jazz ensemble, the Bulldog Orchestra, is also made up of select members of the Regimental Band, and provides music for social functions.

The Honor System

The honor system of the Corps of Cadets makes a unique contribution to the overall educational process at The Citadel. It is an integral part of the training received by all cadets, and its purpose is to inculcate a sense of honor in Citadel graduates so that they instinctively conduct themselves in an honorable manner.

The Honor Code states that a cadet does not lie, cheat, or steal, nor tolerate those who do. The code is enforced and supervised by a cadet Honor Committee composed of members of the first class who are elected in the spring of their junior year by the three lower classes.

The Honor Committee consists of representatives from each company and each battalion who instruct incoming freshmen in the honor system and assist all cadets with interpreting the honor system. When a cadet is reported for an honor violation, the circumstances are thoroughly investigated; if there is a *prima facie* case established against the cadet, he or she appears before an Honor Court composed of 10 members of the Honor Committee. A cadet accused of an honor violation is provided cadet counsel, and cross examination is allowed. Conviction by the Honor Court requires a unanimous secret vote of "guilty." If a cadet is found guilty and if the President confirms the verdict, the cadet is expelled from the Corps of Cadets. The Honor Committee is responsible directly to the President of the college. A faculty advisor assists the Honor Committee. This officer provides counsel and acts in an advisory capacity at each Honor Court trial.

Department of Cadet Activities

This department, with offices located in Mark Clark Hall, provides activities for cadets outside of the classroom that allow them to broaden their talents and interests. Major activity areas include publications, social events, and clubs and organizations.

Publications

The Brigadier, published by a staff of cadets, serves as the campus cadet newspaper. Approximately seven issues are published each semester.

The Sphinx, the college yearbook, is published annually by a staff of cadets. This publication serves as a semi-official record of the cadets' year.

The Guidon, the handbook for fourth class cadets, is published annually by the Cadet Activities and Cadet Guidon staff. It contains a complete description of the activities of the Corps of Cadets, Citadel history, customs and courtesies, and duties and responsibilities of cadets. It is mailed to incoming fourth class cadets early in the summer.

The Art of Good Taste, the etiquette manual published by the Cadet Activities staff, is designed to provide cadets with a compact manual of proper etiquette and the customs and courtesies of the lady or gentleman in or out of the service.

The Honor Manual, published by the staff, with input from the Honor Committee, covers the organization, rules and procedures of The Citadel's cadet honor system.

Founded in the spring of 1993, *El Cid* is the publication of The Citadel's Tau Iota Chapter of Sigma Delta Pi, the National Collegiate Hispanic Honor Society. This publication is a refereed journal in Spanish that publishes select undergraduate and graduate creative writing. Only members of Tau Iota may be selected for the editorial team.

The Gold Star Journal, The Scholarly Journal of the Corps of Cadets and College of Graduate and Professional Studies, publishes nonfiction papers from any discipline. This annual is produced by a staff of cadets for Corps Day.

The Journal of the Scipio Africanus Society is published annually by a staff of cadets, and serves as an outlet for cadet independent research in international affairs.

The Shako documents the literary and artistic achievements of Citadel cadets and graduate students. All submissions are compiled, edited and published annually by cadets for distribution throughout The Citadel community.

Social Events

All Citadel dances (hops) are under the sponsorship of the Standing Hop Committee, an organization comprised of members of the three upper classes. The duties of this committee are to select bands and coordinate all plans for the hops. Citadel hops highlight the social activities of the college and are mainly for cadets; however, family members are welcome. The formal hop held annually is the Ring Hop. Corps Day Hop is semi-formal.

Other social activities such as harbor cruises, cook-outs, dance classes, and the annual Talent Show are planned and conducted by members of the Cadet Activities Advisory Committee under the supervision of the Regimental Activities Officer and staff of the Department of Cadet Activities.

Members of the Cadet Activities staff also maintain an open door policy to assist or advise any cadet on social issues or etiquette.

Clubs and Societies

Membership in a wide variety of clubs, societies, and other organizations is available to all cadets and active duty students. Among these are literary and discussion groups; professional societies; military, religious, and athletic organizations; and recreational and service clubs. The span of these activities is so broad and so varied that all cadets and active duty students should be able to find organizations that fit their interests and talents.

Club Sports Program

The Club Sports program is supervised by the Department of Health, Exercise and Sport Science. A Director of Club Sports, faculty advisors and volunteer coaches support each team's captains. Club Sports provide limited extramural competition in activities that are not governed by the NCAA or Southern Conference. Club sports historically established include boxing, ice hockey, kendo, lacrosse, pistol, rugby, sailing, scuba diving, tae kwon do, triathlon and volleyball.

Intramural Athletic Program

The intramural athletic program is an integral part of extracurricular life at The Citadel. Competition can be intense as cadets compete during the academic year for their companies. Administered by the Department of Health, Exercise and Sport Science, the program includes both individual and team competition, typically in freshman and upperclass leagues. Intramural events include:

Air Rifle
Badminton
Basketball
Basketball Free Throw
3 on 3 Basketball
Dodgeball
Flag Football
Horseshoes
Racquetball
Soccer
Softball
Swimming & Diving
Table Tennis
Team Handball
Tennis
Track & Field
Triathlon
Ultimate Frisbee
Volleyball
Wallyball
Weight Lifting
Wrestling

Health Services

The Citadel Infirmary's primary mission is to provide medical care to The Citadel Corps of Cadets during the regular academic year. The Infirmary is staffed on that basis and operates on a 24-hour-a-day, seven-days-a-week schedule during the time the Corps of Cadets is on campus.

The Citadel Infirmary professional staff consists of one full-time physician, one part-time physician, one nurse practitioner, and seven registered nurses. In addition, the physicians are able to consult with a host of specialists in the Charleston area.

The Citadel also has a Sports Medicine Department which is staffed by certified athletic trainers. The Sports Medicine Department provides support to The Citadel Infirmary, the Athletic Department, the three ROTC Departments, the intramural programs, and other cadet, faculty, and staff activities.

Medical Insurance

For cadets, proof of adequate hospital/medical insurance coverage is mandatory for admission, readmission and for each semester of attendance at the College.

The Citadel has made arrangements with a private insurance company for a group insurance program which is available to most cadets **who do not carry adequate coverage**. The particulars of this program will be provided upon request. This program is approved by The Citadel but operated by a private agency.

The Citadel Infirmary must be notified immediately of any change in medical insurance **coverage or provider**.

Department of Public Safety

The mission of the Department of Public Safety is to "ensure the safety and security of all persons and property on The Citadel campus." Public safety officers are state-commissioned law enforcement officers operating under the authority of the State Law Enforcement Division (SLED) with jurisdiction both on and off campus for incidents occurring on Citadel property. The Department of Public Safety is also responsible for assigning campus parking spaces and enforcing campus parking regulations. Campus police may be reached at 953-5114.

Employment

The time of a cadet at The Citadel is filled with duties and obligations; however, there is opportunity for campus employment for cadets who believe they can manage the extra responsibility. The College offers a limited number of part-time positions with various campus activities as well as work-study jobs which are available to students with financial need. Employment is designed to provide for a modest portion of college expenses.

Cadet Facilities

Mark Clark Hall

The office of the Department of Cadet Activities is housed on the second floor in Mark Clark Hall, which serves as the student union building. Named after General Mark W. Clark, it has been in use since 1958. On the first floor are a reception room, snack bar, gift shop, post office, barber shop, and a billiard room. An auditorium, the alcove lounge, the Greater Issues Room, several meeting rooms, and staff workrooms for cadet publications are on the second floor. On the third floor are the Catholic chaplain's office and chapel, the Episcopal chaplain's office, the Honor Court room, and the office of The Citadel's photographer.

Beach House

The Colonel Robert R. McCormick Beach House is on the Isle of Palms, about a half hour's drive from the campus. This functional two-story clubhouse, overlooking the Atlantic Ocean, is controlled by the Department of Cadet Activities. It is primarily for the use of cadets, CGPS students, faculty and staff, but can be rented to outside groups. Facilities include a large ballroom, shower facilities, sheltered picnic area and outdoor sports areas. The grounds are floodlighted to facilitate evening parties.

Boating Center

The Citadel Boating Center membership is available to students, faculty, and staff. Perference is given to students in the use of the center's facilities.

The club fleet consists of canoes, small sailboats, and outboard motorboats.

Boating Center facilities consist of a clubhouse, dockage, marine railway, sail loft, and work area for maintenance and repair of small boats. Storage of privately owned boats is available for a small fee.

Military Policies

General

The Citadel is justly proud of its military training program which contributes significantly to the State of South Carolina and the nation in the form of military and civilian leadership. The Citadel is one of four Essential Military Colleges remaining in the country. Citadel graduates are adding to the rich heritage of their alma mater as officers in the armed forces and as leaders in the state and nation.

The ROTC training at The Citadel is conducted by active duty commissioned and noncommissioned officers of the U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps. These active duty military personnel are organized into the Department of Military Science (Army Reserve Officers' Training Corps), the Department of Naval Science (Naval Reserve Officers' Training Corps), and the Department of Aerospace Studies (Air Force Reserve Officers' Training Corps). While eight semesters of ROTC training are required of all cadets attending The Citadel and graduates are encouraged to seek a commission in one of the armed force services, cadet graduates are not required to accept a commission.

Commandant of Cadets

The Commandant of Cadets commands the Corps of Cadets and is responsible for leadership training. The Commandant also grants leave and other privileges provided for by regulations and is charged with the maintenance of discipline over all cadets attending The Citadel. Furthermore, the Commandant exercises supervision over the barracks, controls the officer-in-charge and the cadet guard, and keeps the President of the college informed on matters pertaining to the administration, conduct, and discipline of the Corps of Cadets.

Discipline

As a military college, The Citadel sets high standards of conduct and discipline. By instruction and example, cadets are taught to be neat in person and in uniform. Daily inspections of rooms ensure cleanliness and good order. Through individual personal contact and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity, and courtesy which are an outstanding mark of the Citadel cadet.

A cadet who commits an act off-campus that reflects adversely on The Citadel or the Corps of Cadets may be punished as if the act had been committed on-campus if the alleged misconduct violates the cadet disciplinary code and the act:

- potentially endangers the health, safety, or welfare of members of the campus community, or
- potentially places college property at risk of damage, loss, or destruction, or
- occurs at a time when the cadet represents the College in an off-campus activity, or
- involves conduct that charges one or more of the following:
  a felony act; a crime of moral turpitude; an act of violence; an act that involves the possession, use, or sale of an illegal drug or alcohol; or, an act involving racial or sexual harassment, or results in the student being found guilty in a court of law or the student declines to contest such charges although not admitting guilt (e.g. no contest or nolo contendere).

During periods of furlough, the cadet disciplinary system may apply if the conduct meets these criteria.

Leadership

Leadership, initiative, and character are developed by placing upon cadets the stimulating responsibilities of command within the Corps of Cadets.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accounted for. Regular habits of study and living, attention to duty, obedience to authority, and appreciation for order are considered among the most valuable features of The Citadel education. While some graduates enter the military profession, thousands in all walks of civilian life attest to the high value of the training received at this institution.

The daily routine is regulated by the *Cadet Regulations*, generally known as *The Blue Book.*

Allowances of Demerits

Cadets who accumulate more than 20 demerits per month in their senior year, 22 per month in their junior year, 24 per month in their sophomore year, or 30 per month in their freshman year, will be declared conduct deficient. Cadets repeating any part of the fourth class year are allowed only 25 demerits per month. Conduct deficient cadets are not allowed to take normal leaves or passes and are required to serve one hour of punishment for each demerit over the specified limit. Any cadet exceeding the allowed limit of demerits or other punishments may be discharged.

Clothing/Luggage

All cadets are required to furnish their own bedclothes except a bedspread and blanket which will be issued to each cadet. Beds and mattresses are provided by the College, but pillows are not. One cloth mattress cover will be issued at cost to each cadet. Cadets *must* bring with them other required articles (a list will be provided by the Admissions Office). Instructions pertaining to personal effects will be sent to each cadet prior to the reporting date for incoming freshmen.

Cadets are advised to bring inexpensive trunks and suitcases since they are not permitted to retain them in their rooms, and they must be stored in a warehouse on campus. One overnight bag for weekend or athletic trips may be kept in the cadet's room. Excess luggage, on a limited basis, may be stored in the Central Supply storage facility at the risk of the owner.

Luggage may be shipped to The Citadel in advance. Luggage sent by commercial transportation should be clearly identified with the name of the cadet, company letter, and/or barracks number or name and shipped to Central Supply, The Citadel, 171 Moultrie Street, Charleston, S.C. 29409.

Automobiles

All vehicles operated on campus by cadets, other Citadel students, faculty, or staff must be registered with the Department of Public Safety, but registration is a privilege, not a right. Registered vehicles must meet current home-state requirements with regard to registration, insurance, and safety inspections. All vehicles are operated and parked on campus at the owner's risk. All unregistered or illegally parked vehicles are subject to ticketing and towing at the owner's risk and expense.

Each cadet of the first, second, or third class is authorized to have an automobile at The Citadel. The vehicle must be registered with The Citadel Director of Public Safety.

Parking fees are charged for all on-campus parking. Each registered first or second class cadet vehicle will be assigned a specific, 24-hour per day, reserved parking space on campus. A set of cadet decals for this space will be affixed to each registered vehicle. The vehicle may only be parked in the space designated on the decals and in no other space at any time unless specific authorization is given by a member of the Department of Public Safety.

Cadets of the third class will register their automobiles as noted above and park their vehicles on sophomore field from Sunday at 1600 hours through Friday at 1700 hours. During the period 1700 Friday, through 1600 Sunday, third class cadets may also park on Kovats Field. Although it is permissible to park behind Capers and Jenkins Halls except during major events/weekends, there are generally few parking spaces not already assigned. No cadets will park overnight off-campus in the immediate vicinity of The Citadel. The immediate vicinity is defined by Spring Street on the South, Rutledge Avenue on the East, and St. Margaret Street on the North.

Cadets of the fourth class are not authorized to have, maintain, or park an automobile on The Citadel campus or within the above area at any time during their freshman year. Freshmen should not bring cars to Charleston.

Two- or three-wheeled motorized vehicles are not authorized to be operated on campus.

Reserves and National Guard

Cadets may become members of Army, Navy, Air Force, or Marine Corps Reserves or National Guard (Army or Air). Students who join these organizations should consider joining local units in the Charleston area for ease of transportation and conducting business. Although Reserve and National Guard duty is a priority responsibility, cadets must be aware of their academic and Citadel military responsibilities and make all efforts to ensure that conflicts are kept to a minimum.

Leave

It is expected that parents will not ask for special leave for their sons or daughters except in cases of extreme emergencies. In every case, the decision is left to Citadel authorities as to whether the circumstances warrant the granting of the leave.

The paragraph which follows is extracted from *Cadet Regulations:* 125h

> 803c(4). EMERGENCY LEAVE.
>
> Emergency leave may be granted in the event of death or critical illness of a member of the cadet's immediate family.
>
> Duration of this leave will be predicated upon distance and time required but should normally not exceed five class days. The immediate family includes parents, grandparents, brothers, sisters, and the permanent resident members of the family.
>
> Critical illness is defined as an illness of such proportions that death may be imminent.
>
> Special leave normally may be granted upon request of the family or guardian only in the event of the marriage of a member of the cadet's immediate family or golden wedding anniversary in the cadet's family.
>
> Cadets may be granted special leave for such unusual business affairs as cannot be arranged by correspondence but require the presence of the cadet in person. In all cases, the final decision must rest with the authorities of the College.

The Citadel has a weekend and overnight leave policy based on increasing class privileges for cadets who maintain academic and conduct proficiency. Fourth class cadets are not authorized an overnight or weekend leave during the first semester.

Leaves are granted at Thanksgiving, at Christmas, and in the spring. Upon completion of the second semester, the Corps is released on furlough.

The following paragraphs pertaining to medical leave are extracted from *Cadet Regulations:*

> 138. MEDICAL SERVICES.
>
> 138a (3) Except in an emergency occurring on leave requiring immediate attention, a cadet will not arrange for or receive professional treatment from doctors or specialists without the knowledge of The Citadel Physician. Applications for any special leave required for such treatment will be submitted to The Citadel Physician and, if approved, will be forwarded by The Citadel Physician to the Commandant.
>
> 138a (5) Cadets who are receiving medical care under the auspices of a private doctor will in all cases report the nature of the treatment, to include the illness and prescribed medication, to The Citadel Physician.
>
> 138e SPECIAL MEDICAL AND DENTAL SERVICE.
>
> (1) Dental work, special eye examinations, etc. should be scheduled during the summer, Christmas, or spring furlough periods.
>
> (2) If the services of a local dentist, oculist, doctor, or other specialist are deemed necessary, cadets will make their own appointments; however, they must inform The Citadel Physician. If desired, the Infirmary will schedule the required appointment for the cadet.

The Fourth Class System

The purpose of the Fourth Class System at The Citadel is to lay the foundation, early in a cadet's career, for the development of those qualities of character and discipline implied in the mission of The Citadel as a military college—to produce The Citadel Whole Person with an alert mind and a sound body who has been taught high ideals, honor, integrity, loyalty, and patriotism; who accepts the responsibilities which accompany leadership; and who has sufficient professional knowledge to take a place in our competitive world.

These personal qualities must be deeply ingrained in individuals so that neither time nor troubles will diminish their respect for complying with the customs and traditions set forth for the fourth class cadets' conduct. Self-discipline and self-evaluation develop graduates whose integrity and sense of duty cause them to serve selflessly beyond the prescribed limits of their tasks.

The Fourth Class System is both difficult and demanding. It represents an abrupt change from the life normally experienced in the home and encompasses the entire period from the cadet's arrival for his or her first year at The Citadel until Corps Day. It is administered impersonally and professionally. It requires a full measure of mental preparedness and physical endurance.

Because of the nature of the new cadets' training during their first weeks at The Citadel, physical demands are necessarily great. Experience indicates that the cadets who, prior to admission, have conditioned themselves physically are best able to meet the training requirements.

At the time of their medical examination, cadets should consult with their physician regarding their body weight. Particular attention should be given to estimated percent body fat, which provides a much more accurate figure for determining proper body weight than height/weight charts. If body weight loss appears to be indicated, cadets should follow the physician's advice relative to reducing caloric intake and increasing caloric expenditure.

The Charleston climate is generally conducive to year-round outdoor physical activity; however, the hot, humid conditions of August and September present several problems worthy of consideration. It is, therefore, important that cadets prepare themselves by controlled exposure to similar conditions during exercise.

In preparation, it is advisable to begin with a light to moderate work load of jogging and walking for a 15- to 20-minute period, progressing to longer periods of jogging preceded and followed by calisthenics such as push-ups, bent-leg sit-ups, jumping jacks, and 1/2 knee-bends. *Exercises such as full-knee bends, straight-leg sit-ups, and straight-leg lifts should be avoided.*

Continued progress should be made until 3 to 5 miles can be covered in approximately 25 to 40 minutes, respectively. It is advisable to be able to perform pushups and situps so as to meet the following standards: males, 42 pushups and 53 situps; females, 19 pushups and 53 situps. Each event must be completed in two minutes with a ten minute break between the events.

In addition, each applicant for entry into The Citadel should be assured through a medical examination that there is no history of physical ailments which could possibly cause discharge due to inability to participate in the Fourth Class System.

The Fourth Class System by nature appears arbitrary on the surface. It demands prompt and unquestioning obedience of authority through the use of a collection of customs and traditions. However, each of the elements or customs has a special purpose in furthering a cadet's development.

The system includes standing at a rigid position of attention, turning square corners when walking, undergoing inspections before formations, learning various items of fourth class knowledge, working on approved company details such as minor chores incident to keeping one's own area of the barracks in order, and submitting to a variety of minor restrictions concerning the use of certain campus grounds and facilities, the wearing of the uniform, and the general conduct of a fourth class cadet.

Cadets who are unable to meet the desired standards or violate one or more of the customs are subject to corrective action. This can range from a verbal reprimand to walking tours on the quadrangle of barracks and may include restriction to the limits of campus. In extreme cases, a cadet who is unable to conform to the military way of life may be brought before a suitability board to determine fitness to continue at The Citadel.

The measures described above are designed to test a cadet's mettle and to determine motivation for cadet life. Their value lies in developing cadets' ability to perform their duty successfully under trying and stress-producing conditions.

Hazing is not a part of the Fourth Class System and is not tolerated. The suffering of degradation, humiliation, and indignity does not foster the rapid development of those qualities sought in fourth class cadets.

The Fourth Class System is a formidable challenge to any young person. The decision to enter The Citadel must be preceded by a conviction on the part of the prospective cadets and their parents that these future cadets have the mental and physical characteristics appropriate to the system and possess a willingness to undergo the system's rigors with a determination to see it through and to reap its benefits.

Although the system is demanding and difficult, the rewards are considerable, and they more than justify the effort. At recognition by the upperclass cadets, a better person emerges—one who is mentally, morally, physically, and spiritually prepared to accept the responsibilities of leadership which will ultimately be given at The Citadel and in the world.

Fourth Class System for Transfer Students

Those students transferring from the national service academies (specifically the Military Academy, the Naval Academy, the Air Force Academy, the Coast Guard Academy, and the Merchant Marine Academy), Virginia Military Institute, or any other institution at which such students have:

a. successfully completed their participation in a fourth class or plebe system;
b. been full-time students in good standing in an ROTC program for the period of their enrollment at such an institution;
c. been enrolled at any of the institutions listed above for a minimum of two semesters;

shall have the option of requesting a transfer out of the Fourth Class System after one semester at The Citadel, provided at that time they are at least academic sophomores. Eligible students exercising this option to transfer out of the Fourth Class System shall have no cadet rank, nor have any authority over the other fourth class cadets for the balance of the academic year. All other transfer students will undergo a full year of the Fourth Class System at The Citadel. The Commandant of Cadets will make the final decisions on requests for transfer.

The Citadel's Physical Fitness Test

The Citadel's Physical Fitness Test is given at various times during each semester. Any cadet failing to meet minimum standards at any application of the test will be assigned to a remedial physical fitness program. Cadets must satisfactorally pass the physical fitness test to be physically proficient, which is a requirement to qualify for class privileges and graduation.

ROTC Programs

The Citadel offers commissioning opportunities in all branches of the armed services. While every cadet must successfully complete a course in one of four ROTC programs each semester, cadets are not required to enroll in any ROTC commissioning program nor are they required to accept a commission should it be offered.

All cadets are required to enroll in and pass an ROTC course for every semester in which they are enrolled at The Citadel until they have completed eight semesters or met graduation requirements. If extenuating circumstances beyond the control of the cadet require that he/she withdraw from or not enroll in ROTC, the cadet who is pursuing or may wish to pursue a commission must have the permission of the head of that ROTC Detachment. The cadet who is not pursuing a commission must have the permission of the academic advisor and the Associate Provost. Cadets who miss or fail an ROTC class must meet that requirement in order to graduate. When cadets are making up a missed ROTC requirement or changing to another ROTC, they are not, without permission of the head of the ROTC Detachment, permitted to enroll in an ROTC class at a level lower than their academic class. For example, a member of the senior class who wishes to change to another ROTC must enroll in a senior-level course in the new ROTC unless the head of the ROTC Detachment authorizes enrollment in a lower level course. ROTC classes may not be used to meet elective requirements in any course of study.

The Citadel Foundation Armed Forces Scholarships

With respect to CSP scholarship recipients only, Citadel academic scholarships may be available to help defray college expenses not covered by the ROTC Scholarship. The Citadel currently provides in-state four-year ROTC scholarship recipients a Citadel Foundation Enhancement Scholarship to cover the full catalog cost per year. Out-of-state four-year ROTC scholarship recipients receive $3,500 per year, and all three-year scholarship recipients receive $950 the first year and $3,500 per year for the remaining three years. The Citadel Foundation Enhancements are dependent on funding and are therefore subject to change.

ARMY ROTC PROGRAM

The mission of Army ROTC is to commission the future officer leadership of the U.S. Army and to motivate young people to be better Americans. Army ROTC is the only commissioning program that offers future officers the opportunity to serve in the Regular Army as well as the National Guard or the Army Reserve. Regardless of cadets' academic majors, there is an Army specialty that can fulfill their goals.

U.S. Army ROTC Graduates

Graduates of The Citadel's Army ROTC program, who have accepted a contract, have the opportunity to serve their country in a variety of branches and specialties. Those cadets who have excelled academically and militarily, both in the classroom and at the ROTC Leader Development and Assessment Course (LDAC), and who have clearly demonstrated high character and outstanding leadership ability, will be selected as Distinguished Military Students.

Graduates of the Army ROTC program may also serve as officers on Active Duty, members of the United States Army Reserve, or Army National Guard. Headquarters, Cadet Command guarantees active duty to those cadets who are qualified and are recommended by the Professor of Military Science. Those who desire to be in the National Guard or U.S. Army Reserve will serve on active duty to complete their officer basic course, and then serve as a "citizen soldier" in a Reserve or Guard unit near their homes, graduate schools or work, or in the Individual Ready Reserve (IRR). No matter what type of option is chosen, the total obligation is eight years of Active or Reserve Duty, or a combination of both.

Scholarships

The Army sponsors four-year, three-year, and two-year academic scholarships for outstanding cadets who desire careers as officers in the United States Army. High school students must apply before November 15th of their senior year for four-year and three-year advanced designee scholarships. Applications may be obtained at www.armyrotc.com. The application process for two-year and three-year Campus Based Scholarships begins in November of the cadet's freshman (three-year) and sophomore (two-year) years. The Army scholarship currently pays yearly tuition and fees of $6,300 for in-state students and $14,948 for out-of-state students. The amounts are adjusted annually due to institutional tuition and fee changes.

Cadets interested in Reserve Component Duty can apply for a two-year Dedicated or Guaranteed Reserve Forces Duty scholarship or for a two-year Dedicated Army National Guard Scholarship in November of their sophomore year.

Citadel academic enhancements may be available to defray college expenses not covered by the ROTC scholarships. The Citadel provides in-state four-year ROTC scholarship recipients an additional scholarship to cover the full-catalog cost per year. Out-of-state four-year ROTC scholarship recipients receive $3,500 per year, and three-year advanced designee ROTC scholarship recipients receive $950 for their freshman year and $3,500 per year for the remaining three years.

Pay and Allowances

Cadets enrolled in the ROTC Basic Course, who are academic freshmen or sophomores, receive a uniform allowance of $885 each academic year. Cadets who are in the Advanced Course (junior and senior years) and contracted with the Army to be commissioned when they graduate receive a uniform allowance of $2,655 in their junior year. Additionally, contracted cadets will receive a non-taxable subsistence allowance based on their MS level for ten months of the school year. Freshmen receive $250/month, sophomores receive $300/month, juniors receive $350/month, and seniors receive $400/month. All scholarship students receive a textbook allowance of $450 per semester. Between their junior and senior years, all contracted cadets attend a five-week Leader Development and Assessment Course (LDAC) and receive one-half of the base pay of a second lieutenant plus travel to and from LDAC from either Charleston, SC or their home of record.

Summer Training

Outstanding cadets also have the opportunity to attend U.S. Army service schools such as the Basic Airborne Course, Air Assault School, Northern Warfare Training, Mountain Warfare Training, SCUBA School, or Cadet Troop Leadership Training with active duty Army units around the globe. Cadets are allowed to enlist or retain their membership in the Army National Guard or U.S. Army Reserve under the Simultaneous Membership Program.

Formal Enrollment Requirements

The basic requirements for enrollment in the Army ROTC program must be fully met before the Professor of Military Science can consider a cadet for enrollment in the Army program. (Cadets not meeting these standards are not eligible for commissions or ROTC monetary allowances.) To be eligible, a cadet must:

1. Be a citizen of the United States of America.
2. Be of good character. Cadets convicted by a civil or military court of offenses other than minor traffic violations are not eligible for enrollment without specific approval of the Department of the Army. A cadet may apply for a waiver for a conviction, provided the offense was nonrecurring and did not involve moral turpitude.
3. Maintain a satisfactory academic record. A minimum of a 2.00 cumulative GPA is required for LDAC attendance and commissioning.
4. Maintain a satisfactory disciplinary record and leadership rating. This rating is determined by the Professor of Military Science.
5. Pass the Army Physical Fitness Test (APFT) and meet/maintain the required height and weight standards.
6. Be physically and medically qualified under Department of the Army

medical standards.

Formal enrollment in the Advanced Course and contracting requires a cadet to meet all of the above criteria, and validation of these criteria is normally done during the spring semester of the cadet's sophomore year. Waivers for physical defects are granted only in exceptional circumstances, and then only by the authority of the Department of the Army.

NAVY/MARINE ROTC PROGRAM

The purpose of the Navy and Marine Corps NROTC Program at The Citadel is to educate and train cadets for professional service as officers in the U.S. Naval Services. The Citadel's NROTC Program is unique in its ability to use the local Naval and Marine Corps facilities to support its program. Two programs are offered, leading to commissioning as ensigns (Navy) or second lieutenants (Marines):

1. The Navy/Marine Corps Scholarship Program includes selected Naval Scholarship cadets assigned to The Citadel who have their tuition and all or a major portion of their college expenses paid by the Navy Department and will be commissioned upon graduation.
2. The Navy/Marine Corps Advanced Contract ROTC College Program includes cadets who receive limited financial assistance during their junior and senior years and will be commissioned upon graduation.

Navy/Marine Scholarship Program

Navy/Marine Scholarship students are selected through national competition and attend one of the colleges or universities with Naval ROTC (NROTC) units. Each year a number of the Naval ROTC College Program cadets at The Citadel may receive direct scholarship appointments from the Commander, Naval Education and Training Command. The Navy Scholarship cadets attending The Citadel may enroll in any academic major offered by the college. However, All Navy Scholarship cadets, regardless of major, are required to complete MATH 131/132 or MATH 106/107 and PHYS 221/222 with associated labs. All four-year Navy and Marine NROTC Scholarship students receiving a commission must also attend three summer training sessions with pay. In return, the Department of the Navy, via the NROTC Unit, The Citadel, provides tuition, certain fees, a textbook allowance, a uniform allowance, and a monthly subsistence allowance of up to $400. Upon graduation, NROTC Scholarship cadets receive commissions as ensigns in the U.S. Navy or second lieutenants in the U.S. Marine Corps and serve on active duty for a minimum of four years. The Citadel academic scholarships may be available to help defray college expenses not covered by the Naval ROTC scholarship program. In addition, in most cases, The Citadel provides in-state four-year ROTC scholarship recipients a scholarship to cover the full catalog cost per year. Out-of-state four-year scholarship recipients, in most cases, receive $3,500 per year. For additional information, please see the NROTC web site at www.nrotc.navy.mil and the NROTC Unit, The Citadel's web site at www.citadel.edu/nrotc.

Naval ROTC College Program

The Navy/Marine Corps Advanced Contract ROTC College Program is offered for cadets who wish to earn commissions as officers in the U.S. Navy or U.S. Marine Corps. These Naval cadets may enroll in any academic major at The Citadel. Advanced Contract students must attend a minimum of one summer training cruise, with pay, usually the summer after the junior year. The Navy furnishes all naval science textbooks, provides an annual uniform allowance, and pays a monthly subsistence of up to $400 a month during the junior and senior years. Upon graduation, these Naval cadets receive commissions in the U.S. Navy or the U.S. Marine Corps and serve on active duty for a minimum of four years.

Formal Enrollment Requirements

To be eligible for enrollment in the Naval ROTC program, cadets must:

1. be citizens of the United States;
2. have reached the 17th anniversary of their birth by June 30 of the year enrolled;
3. not have reached their 25th birthday by June 30 of the year they expect to graduate (this can be waived); and
4. be physically qualified. (Defective vision must be correctable to 20/20, and waivers for color blindness may be considered.)

Those cadets not qualified for or not desiring formal enrollment in either the Scholarship or Advanced Contract Program may participate in Naval Science courses for academic credit only. They will not be eligible for appointment to a commissioned grade.

Selection of Navy/Marine Option

Naval cadets may, upon matriculation, exercise an option and indicate a desire for a commission in either the U.S. Navy or U.S. Marine Corps. This option must be exercised prior to the beginning of the junior year as the Navy and Marine curricula become independent during the last two years. All candidates for the Marine-option must have the recommendation of the Marine Officer Instructor and the approval of the Professor of Naval Science for enrollment.

NROTC Summer Training

Navy/Marine Scholarship cadets are required to perform training of approximately six weeks duration for each of the three summers between their freshman and senior years in which they are contracted. Summer training is performed aboard operational ships of the fleet and at various naval bases. Naval cadets receive orientation in four naval warfare areas including surface warfare, submarine warfare, naval aviation, and Marine Corps amphibious warfare. Marine options receive specialized training in mountain warfare, amphibious operations and combined arms during the summer as a rising junior. During the third summer, candidates for U.S. Navy commissions perform their training aboard fleet operational ships, serving as junior officers. Candidates for U.S. Marine Corps commissions perform their training at the Officer Candidate School, Quantico, Virginia.

Naval ROTC Advanced Contract cadets are required to perform one summer of training duty between their junior and senior years. The period of training is about six weeks. Candidates for commissions in the U.S. Navy normally will perform their training aboard operational ships of the fleet. Candidates for commissions in the U.S. Marine Corps will perform their training at the Officer Candidate School, Quantico, Virginia.

Transportation costs to and from the sites of training will be covered, and cadets will earn one-half of ensign or second lieutenant pay.

Summary of Estimated Naval ROTC Allowances

Navy/Marine Scholarship Program:

Each scholarship pays tuition and registration, college, hospital, and laboratory fees outlined in this catalog. In addition, the following payments are also made by the Navy Department:

1. Uniform allowance—paid over three years;
2. Subsistence allowance—gradually increases with academic standing to a maximum of $400 per month;
3. Summer training pay—one-half of ensign or second lieutenant pay for period of training;
4. Book allowance of $300, paid each semester.

Advanced Contract Program

Navy Department reimbursements for students enrolled in the college program are:

1. Uniform allowance—paid over one year;
2. Subsistence allowance—gradually increases with academic standing to a maximum of $400 per month;
3. Summer training pay—one half of ensign or second lieutenant pay for the period of training.

AIR FORCE ROTC PROGRAM

The mission of The Citadel's Air Force ROTC Detachment is to provide instruction, education, training, experience, and motivation to each cadet choosing the Air Force ROTC program and to ensure that each cadet possesses the knowledge, character, and qualities of leadership essential to excel as a future officer of the U.S. Air Force or American citizen.

Emphasis is placed on the preparation of the dedicated professional who accepts responsibility readily, thinks critically and creatively, and writes and speaks effectively.

Citadel graduates have served both the Air Force and the nation well in war and peace. Today's Citadel cadets can be expected to assume important command and managerial positions in the aerospace forces of the United States, government services, or the private sector.

Four-Year Program

The four-year Air Force ROTC program at The Citadel serves as a major commissioning route for young men and women interested in becoming officers in the U.S. Air Force.

Students enroll at the beginning of the freshman year, and during that first year, they study the organization, mission, and functions of the Air Force as well as fundamental leadership, followership and communications skills.

During the sophomore year, cadets will examine the development of air power during this century. Those cadets who are physically qualified and have maintained good academic standing may apply for entry into the advanced portion of the program. Cadets desiring a commission will attend a four-week field training course between their sophomore and junior years.

Cadets enrolled in the Professional Officer Course—the last two years of the Air Force curriculum—study communication skills, leadership in theory and practice, the principles and functions of management, and problem solving. The final year includes the military justice system, the role of the professional officer in a democratic society, the requisites for maintaining adequate national security forces, the constraints upon the national defense structure, the effect of technological and international developments on strategic preparedness, and an analysis of the defense policy making process.

Formal Enrollment Requirements

To be eligible to pursue a commission through the Air Force ROTC Program, a cadet must:

1. be a citizen of the United States;
2. maintain a satisfactory academic record;
3. Pass the Air Force Officers Qualifying Test (AFOQT)
4. be of good moral character;
5. sign a certificate of loyalty to the United States Government.
6. complete the General Military Course with a grade of C or better for each

term (AERO 101/102 and 201/202);
7. be physically qualified;
8. agree to serve on active duty and/or reserve inactive duty for a specified period:
   a. four years active duty and four years inactive reserve status for most;
   b. ten years active duty for pilots and six years active duty for navigators after completion of Undergraduate Flying Training.
9. successfully complete a four-week field training course.

Field Training

Citadel cadets pursuing a commission through AFROTC are required to attend a four-week training course at an Air Force base during the summer between the sophomore and junior years. For all cadets, this is a memorable experience because they get a close look at Air Force life and operations. Each cadet receives practical guidance in junior officer training, aircraft and aircrew orientation, small-arms familiarization, physical training, survival training, career opportunities, and training in other areas needed by the Air Force professional.

Base Visits

The vast scope of the United States Air Force is difficult to portray in the classroom. In partial compensation, the Air Force ROTC detachment at The Citadel takes its cadets to the Air Force—in the form of visits to Air Force bases. On these trips the cadets receive briefings on base activities and observe Air Force operations firsthand. They return to school with a more accurate perspective of the global nature of the organization in which they may serve. Experience has shown these visits are of considerable value in developing the cadets' appreciation of the Air Force officers' challenging career.

Pay and Allowances

Air Force contract cadets are provided a monthly tax-free subsistence allowance at the rates of $250 for freshmen, $300 for sophomores, $350 for juniors, and $400 for seniors. In no event shall any cadet receive such pay for more than 40 months of subsistence allowance. Contract cadets are also paid an annual book allowance of $600, and a uniform allowance of $886 for freshmen and sophomores, and $1323 for juniors and seniors.

AFROTC Scholarship Programs

Air Force scholarships are awarded under the auspices of two separate program tracks. The first, the College Scholarship Program (CSP), is open to graduating high school seniors. Details on how to apply for these scholarships, eligibility requirements, and the on-line application can be found at the following website: www.afrotc.com.

College Scholarship Program

The Air Force ROTC College Scholarship Program provides 4-, 3-, and 2-year scholarships in three different types: Type 1, Type 2 and Type 7. The application process is the same for each type.

Type 1 — pays full college tuition, most lab fees and $600 per year for books. Approximately 5 percent of our 4-year scholarship winners will be offered a Type 1 scholarship.

Type 2 — pays college tuition and most lab fees up to $15,000 and pays $600 per year for books. Approximately 10 percent of our 4-year scholarship winners will be offered a Type 2 scholarship (mostly in technical fields). If a student attends an institution where the tuition exceeds $15,000, then he/she pays the difference. All 3-year scholarships are Type 2.

Type 7 — pays full college tuition and most lab fees, but the student MUST attend a college/university where the tuition is less than $9,000 per year. These students also receive $600 per year for books.

In-College Scholarship Program

The second scholarship track is the In-College Scholarship Program (ICSP). The ICSP is highly competitive and open to freshmen and sophomores in any major. The program is divided into three competitive selection phases and one non-competitive selection process.

ICSP Phase One

ICSP Phase One is open only to students enrolled in the Air Force ROTC program.

Eligible applicants are nominated for ICSP Phase One by the AFROTC detachment commander. Nominees are rank-ordered by the detachment commander based on their leadership ability, grades, fitness and overall participation in the Air Force ROTC program. Headquarters AFROTC determines the national selection percentage, which is then applied to detachment submissions, eg, if a detachment has ten qualified cadets and the selection percentage is 40%, the top 4 submissions receive scholarships. The nomination deadline is January 31 of each year.

Those selected are typically notified by February 15 of each year. Cadets selected through ICSP Phase One are awarded a Type 2 scholarship (capped at $15,000 per year for tuition, $600 per year for books).

Freshmen nominees are awarded 3-year scholarships and sophomore nominees are awarded 2-year scholarships. All scholarships activate the following fall term.

ICSP Phase Two

ICSP Phase Two is open to college freshmen and sophomores in any major. Typically ICSP Phase One non-selects and students not currently enrolled in Air Force ROTC are eligible to apply for ICSP Phase Two.

Eligible applicants are nominated or ICSP Phase Two by the commander of the AFROTC detachment. Students not previously enrolled in Air Force ROTC must be interviewed by the detachment commander or his/her designee.

The deadline to submit an application is June 30. The board meets in July and those selected are typically notified by August 1 of each year.

A limited number of cadets selected through ICSP Phase Two are awarded a Type 2 scholarship (capped at $15,000 per year for tuition, $600 per year for books). Most Phase Two scholarships are Type 3, which are capped at $9,000 per year for tuition and $600 per year for books.

ICSP Phase Three

Depending on officer production and funding, a limited number of qualified sophomore ICSP Phase Two non-selects may be offered Type 6 scholarships. This process takes place about two weeks after ICSP Phase Two results are released. No additional application process is required.

Express Scholarships

In order to meet officer production requirments, AFROTC offers non-competitive scholarships for fully qualified college students completing coursework in targeted academic degree programs. If you are in one of the targeted academic majors and will graduate in the appropriate year, then you may qualify for a Type 2 $15,000 scholarship without meeting a selection board. Currently, the only Citadel degree program covered under the Express Scholarship Program is Electrical Engineering. Freshmen who meet all academic and other specified qualifications may be eligible for a 3.5-, 3-, 2-, or 1-year scholarship. Again, these scholarships are based on the immediate needs of the Air Force and are subject to frequent changes. Contact The Citadel's Air Force detachment at 843-953-5005 for the most current information.

ICSP Eligibility Requirements

To be eligible to apply for the ICSP you must:

- Be a United States citizen
- Pass the Air Force Officer Qualifying Test (AFOQT)
- Pass the Air Force ROTC Physical Fitness Test
- Have at least a 2.5 cumulative college grade point average
- Complete a physical examination and be certified as commission-qualified by the Department of Defense Medical Examination Review Board. Non-AFROTC students can apply if the examination has been scheduled. If selected, you cannot activate a scholarship until the medical certification is complete.
- Not already be a contracted scholarship recipient
- Meet the Air Force ROTC age, moral, and other scholarship eligibility requirements

Expenses

The Citadel is supported by the State of South Carolina. The costs of operation are underwritten through fees collected from the students, appropriations made by the General Assembly of South Carolina, and contributions to The Citadel. Nonresidents are required to pay a larger portion of the costs of their education than is required of residents of South Carolina.

The Citadel Treasurer is responsible for the collection of monies due The Citadel. All correspondence concerning fees, payments, and status of accounts should be directed to that office. If referral to a collection agency is required for overdrawn accounts, the amount referred will include the collection agency fee.

Fees

Students attending the day program at The Citadel pay three primary fees: college fees, auxiliary fees, and a "quartermaster deposit". Active duty military personnel assigned to military units for educational purposes pay the same fees as cadets, except for auxiliary fees related to living expenses and the quartermaster deposit. The college reserves the right to adjust fees to meet the current cost of operation should it become necessary. This applies to all educational programs at The Citadel. Current fees are available on The Citadel's web page.

All fees and deposits are due and payable by semester, prior to the date of reporting to school. Freshman bills are normally due the last Friday in July, and upperclass bills are normally due the first Friday in August. Failure to meet billing deadlines subjects the student to being dropped from enrollment at The Citadel. For incoming freshman cadets or returning upperclass cadets, failure to meet billing deadlines may result in the loss of space in the Corps of Cadets and a late payment charge. Remittances by money order or check should be made payable to The Citadel and mailed to the Treasurer, The Citadel, 171 Moultrie Street, Charleston, South Carolina 29409. Remittances by credit card (Mastercard, Visa, or Discover) may be telephoned to the Treasurer's Office or paid on line via a secure connection at PAY.CITADEL.EDU.

Parents or legal guardians are responsible for payment of all fees and overdrafts, unless the Treasurer is notified prior to due dates that the student or some other party has assumed this responsibility.

Information relative to financing educational fees on a monthly installment basis may be secured by contacting the Treasurer's Office at The Citadel. The Director of Financial Aid and Scholarships also has information concerning financing educational fees through loans other than the guaranteed student loan. Financing arrangements require time for processing, so it is essential that application be made as early as possible prior to the beginning of the school year.

Overdrawn Accounts: A student whose account is overdrawn will not be issued or be allowed to send copies of his or her official transcript, be issued a diploma, or be permitted to enroll in additional course work until satisfactory settlement of the account has been made.

Non-negotiable Checks: There will be a handling charge of $30 for a non-negotiable check. The college will pursue collection procedures as provided by the laws of the State of South Carolina. The Citadel will not accept personal checks from individuals who have issued two non-negotiable checks or one non-negotiable check which has not been redeemed.

ATM machine: The college contracts with a major bank to provide an ATM machine in Mark Clark Hall. Students can access their personal bank accounts through this machine. This is a convenient and secure method to handle cash and eliminates the need for students to have large amounts of cash on hand. The college also operates The Citadel Depository from the Treasurer's Office. Cadets may place money into it and may withdraw up to $150 of their money each day. A service charge is assessed each semester to offset the cost of operation of the depository.

Resident Tuition and Fees

Any undergraduate student or prospective student whose status concerning entitlement to payment of in-state tuition and fees is uncertain has the responsibility of securing a ruling from The Citadel by providing all relevant information on special application forms. These forms can be obtained from the Office of the Registrar and are to be completed and returned to that office at least two weeks prior to registration for any semester or summer term for which the student is attempting to qualify for payment of the in-state tuition and fee rate.

Eligibility for payment of in-state tuition and fees shall be determined under the provisions of Sections 59-112-10 through 59-112-100, South Carolina Code of Laws, 1976, as amended. A copy of this law may be obtained from The Citadel Registrar's Office.

Fee Descriptions

College fees support the general operations of the college. A portion of college fees is earmarked to provide debt service for bonds issued to support construction and renovation of education and general facilities and equipment of the college. These are the only fees that are different for in state and out of state students.

Auxiliary fees include athletic support, room, board, infirmary care, and laundry and dry cleaning. A portion of these fees is designed to pay debt service for the auxiliary and athletic facilities.

Quartermaster deposit is used to pay for uniforms, uniform alterations, accessories, books, special infirmary needs, academic supplies, and haircuts. The amount of the deposit is determined annually based upon the average needs of cadets. Certain academic programs and certain corps activities will require other expenditures that are unique to that activity. If a cadet's costs exceed the deposit amount, a bill will be generated to cover any excess. Any unused portion of the deposit will be carried over to the following semester. All unspent funds will be refunded upon graduation or discharge.

Uniforms: All cadets are required to wear The Citadel uniform, which is issued by the College. New cadets are required to be outfitted in new uniforms and uniform accessories issued by the college. New cadets should not bring a supply of civilian clothes other than those which are worn upon reporting to the college, as they are not permitted to wear civilian clothes except during authorized furloughs.

The cost of uniforms, although a paid fee, should be viewed as a clothing expense which is incidental to attending any college. With proper care, uniforms should last for several years. Requirements in subsequent years will depend on the manner in which cadets have cared for their uniforms. The overall cost of the uniforms should not exceed that which would be incurred in purchasing clothes to attend a civilian college. Additional sets of uniforms may be purchased as desired (for cash) in the Cadet Store.

The woolen uniforms issued to cadets are custom-made for The Citadel. Once the uniforms have been fitted, the entire cost will be charged to the cadet. Since the uniforms are tailor-made to the measurements of each cadet after enrollment at The Citadel, every cadet withdrawing from college will be charged a fee for canceling the purchase of the uniforms.

In order to keep the appearance of the Corps of Cadets at the highest level, an inspection will be made of the uniforms of members of the sophomore, junior, and senior classes at the beginning of the school year. If the uniforms do not meet the minimum standards of appearance, the individual will be required to purchase replacements of unserviceable uniform items.

Personal Items and Other Miscellaneous Expenses: The Citadel will permit cadets to charge personal items and other miscellaneous items relevant to their studies or attendance at The Citadel to the quartermaster account. Cleaning and laundering of non-cadet uniform items, guest tickets to athletic events, and purchase of personal items and school supplies at the Gift Shop are included in this category of charges. These charges will be posted and billed if the student account is overdrawn.

Students who have been awarded a full athletic grant-in-aid require approval from the Athletic Department for all purchases to be charged to the quartermaster account.

Statement of Students' Accounts

Students have two accounts at the Citadel, a student account and the quartermaster account. Both are available for review on-line via the PAWS system. PAWS is the web-based system students use to register for classes, review grades, etc. *It is incumbent upon the students to verify each charge or credit made to their accounts.*

Any unexpended quartermaster balance will be held until the next academic year, or until the student withdraws or graduates from The Citadel.

Full athletic grant-in-aid and full academic scholarship recipients are not authorized to receive a refund. Balances in accounts of full athletic grant-in-aid recipients are refunded to the Athletic Department annually.

Other Fees

Reservation Deposit: A $300.00 deposit will be maintained for each cadet. When there is insufficient money in the cadet's account to cover the cost of damage to buildings, rooms, equipment, or loss of ROTC manuals or government property, this deposit will be used. The unused portion is refundable after graduation or withdrawal from The Citadel.

Diploma Fee: The Citadel is one of the few institutions still using genuine sheep skin for its diplomas. The diploma fee is adjusted each year to address the current market price for this material.

Transcript Fee: Official transcripts of scholastic records will be furnished only upon written request. There is no charge for the initial transcript, but a fee of $5 is charged for each subsequent transcript requested. Remittances for transcripts should accompany the application for the transcript and should be mailed to the Registrar (checks payable to The Citadel).

Laboratory/Orientation Fees: Laboratory/Orientation Fees are charged students taking certain designated courses or orientation programs. Fees are billed as part of the preregistered course load.

Technology Fee: A technology fee is charged each cadet. The fee partially offsets the cost of the various computer laboratories on campus and the costs associated with having computers and telephone answering service in barracks rooms.

Late Fee: A significant late fee is charged to all students who are permitted to enroll, even though they may not have satisfied all the financial requirements, i.e. those who have not finalized federal financial aid. Students who sign up for a payment plan and fail to meet the requirements of that plan will be charged the same late fee at the time they fall behind.

Refunds

The Citadel is committed to many expenses based upon the anticipated enrollment of a student at the beginning of each semester. Registration at The Citadel is considered to be a contract binding students and their parents or guardians to charges for the entire semester.

However, students who withdraw during a semester may receive partial refunds based on the length of attendance. Refunds will be computed from the required reporting date until the withdrawal date as determined by the Registrar. No refunds will be made for less than $1.00.

In the event that a cadet receives a Medical Discharge, any refund due the cadet will follow the normal refund schedule policy as promulgated by the Office of Finance and Business Affairs. In the event that the Medical Discharge is a direct consequence of an injury received during The Citadel training program, the cadet may request an adjustment to this policy. A committee consisting of the Provost, the VP for Finance and Business Affairs, and the Commandant will make the final decision on all such requests.

Authorized refunds are as follows:

The school is not subject to any State or Accrediting Agency refund policy.
Institutional Refunds:

Length of enrollment	***Semester fees refunded***
less than one week*	80%
one to two weeks	70%
two to three weeks	40%
three to four weeks	25%
after four weeks	none

*NOTE: Freshman cadets who leave during Freshman Orientation Week are eligible for a 90% refund of all fees.

Deposits for Uniforms, Books, Supplies, and Accessories — Quartermaster Account:

Any unused portion of the deposit to the student's account for uniforms, books, supplies, and accessories will be refunded within 30 days of graduation or discharge.

Financial Aid and Scholarships

The Citadel's scholarship program is designed to attract outstanding high school graduates to the college, reward undergraduate academic excellence, and assist those worthy students who desire financial assistance to complete their college education.

Annually, The Citadel awards more than 3 million dollars in academic scholarships to entering freshmen and upperclassmen. More than 25 full academic scholarships covering all catalog costs are awarded to entering freshmen.

How to Apply

Applicants are considered for scholarships based on the information from admission applications. The applications received by November 15th receive priority in the awarding of scholarship funds. Upperclassmen are required to file a scholarship application by February 1st each year.

Since a number of scholarships specify "need" as a condition of the award, it is recommended that an applicant file a confidential Free Application for Federal Student Aid.

Determination of Awards

All scholarship applications are given careful consideration by the Scholarship Committee. Each application is evaluated and ranked objectively on the basis of the applicant's class standing, grade point ratio, SAT or ACT scores, personal achievement and leadership potential.

Many scholarships contain restrictions as stipulated in deeds of trust. The Citadel matches the most qualified scholarship candidates to such restrictions.

Awards

Most scholarship candidates will be notified of their standing by April 30th.

All scholarships must be applied for on an annual basis, except for full academic scholarships and scholarships for which the deeds of trust specify multi-year awards.

External Scholarships

Numerous corporations, employers, professional organizations, foundations, local civic organizations, churches, and high schools make scholarships available to Citadel cadets.

Outside scholarship assistance has been a rapidly growing source of financial aid at The Citadel. Students should consult high school counselors, employers, civic leaders or public officials and use the local library to obtain information on educational foundations which offer scholarships.

The Citadel has a number of Palmetto Fellow, Sirrine, and C.G. Fuller Foundation Scholarships that are available to residents of South Carolina.

ROTC Scholarships

ROTC scholarships represent significant financial assistance at The Citadel. Each service, whether Army, Navy, or Air Force, has its own criteria and time tables for application and acceptance. SAT or ACT scores must generally be received by a respective service branch by January of the senior year of high school.

Once at The Citadel, a cadet may apply for three- or two-year scholarships. These scholarships cover all tuition, fees, books, and uniform costs. They do not cover room and board. Nearly 10% of the Corps of Cadets hold ROTC scholarships.

Those interested in ROTC scholarships should contact the head of the appropriate ROTC unit at The Citadel for further information and assistance.

The Citadel Foundation Armed Forces Scholarship

All first-time freshmen receiving four-year ROTC scholarships are eligible for the Citadel's ROTC Enhancement Program. This program entitles out-of-state four-year scholarship recipients to receive a grant of $3,500, not to exceed established college costs. In-state four-year recipients are awarded full coverage through the enhancement. This award is intended to be a four-year grant unless the student decides to give up or loses the ROTC scholarship.

First-time freshmen who are designated for three-year ROTC scholarships will receive $950 for their first year. When they receive their ROTC scholarships during their sophomore year, they will be awarded a $3,500 grant, as long as they maintain their eligibility.

Federal Eligibility Requirements

Any student who is accepted for admission is eligible to request financial assistance. However, there are several general eligibility requirements a student must meet to receive federal financial aid:

1) A student must be admitted to The Citadel as a regular or conditional student.
2) A student must be a U.S. citizen or a national or permanent resident.
3) A student may not receive aid if he or she is in default at any institution on any Federal Student Loan Program.

4) Generally, a student must be enrolled at least half-time (6 hours).
5) A student may not receive aid if he or she owes a repayment at any institution on a Pell Grant, Supplemental Grant, or State Student Incentive Grant.
6) A student must have the minimum grade point ratio and must make satisfactory progress toward a degree to continue to receive aid.

Types of Financial Aid Grants

The Federal Pell Grant Program

The Federal Pell Grant program provides federal grants for eligible undergraduate students. Eligibility is determined by the Free Application for Federal Student Aid (FAFSA) using a nationally mandated formula applied uniformly to all applicants. Students must demonstrate satisfactory progress toward a degree each year to receive a Pell Grant in the next academic term.

The Citadel participates in the Department of Education's Electronic Data Exchange (EDE) program, which provides the student and the institution with faster processing of applications. When a student completes the FAFSA, the eligibility for a Federal Pell Grant is determined by the processor, and a paper Student Aid Report (SAR) is generated and mailed to the student's home address. At the same time, an Electronic ISIR is generated to the school. If corrections need to be made on the application, the institution can send the corrections electronically and have the results within 4 days instead of the 2-3 weeks previously required.

The Federal Supplemental Educational Opportunity Grant (SEOG)

The SEOG program provides aid to students who qualify for Pell Grants and who show exceptional financial need. These grants range in value from $300 to $3,000 per academic year, with the average award being $750.

Athletic Grants-in-Aid

These grants are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

Work Programs

The Federal Work Study Program

This program, which is federally funded, provides part-time employment to qualifying students. Students are paid on an hourly basis, not less than the federal minimum wage. Paychecks for hours worked are issued biweekly directly to the student. The Human Resources Office makes assignments after a student has qualified for work-study.

The Institutional Work Program

This program makes funds available for student jobs on campus. These jobs are available in a variety of academic and administrative offices. Students do not need to "qualify" for these positions, as they are not federally funded. Inquiries should be directed to the Human Resources Office.

Loans

The Federal Perkins Loan Program

The Perkins loan program provides needy students with long term, low interest loans for educational expenses. Loans range from $300 to $4,000 per year. The interest rate is five percent. Federal legislation requires institutions to make Perkins Loans available first to students with exceptional financial need. Full-time undergraduate applicants are given priority when funds are limited.

Repayment begins following a grace period of nine months after graduation or termination of enrollment on at least a half-time basis. Students may be allowed up to ten years to repay based upon the amount borrowed, with a $40 per month minimum payment required. Loan repayment may also be deferred for specific reasons.

There are also cancellation provisions for borrowers who enter specific fields of teaching, teach in designated schools, serve in an area of hostilities, volunteer under the Peace Corps or the Domestic Volunteer Service Act of 1973, or serve as a law enforcement or corrections officer.

The Federal Direct Loan Program

The Direct Loan program (formerly GSL) provides students with long term low interest loans. Both subsidized and unsubsidized Direct Loans are available. The federal government “subsidizes” the loan by paying the interest while the student is in school. For an unsubsidized loan, interest accrues while the student is enrolled. Another difference between these two loans is that the family contribution is taken into consideration when determining a student’s need for a subsidized loan. Eligibility for an unsubsidized loan does not depend on the family contribution.

The maximum amounts in loans, subsidized and unsubsidized combined, may not exceed $2,625 for a student who has not completed the first year of a program, $3,500 for a student who has completed the first year but not the second, and $5,500 for a student in the remaining years of undergraduate study, not to exceed an aggregate maximum of $23,000.

The interest rate on a Direct Loan for students borrowing for the first time after October 1, 1992 is variable, annually, and is tied to the 91-day Treasury bill. The maximum interest rate is 8.25%.

The Federal Direct Parent Loan for Undergraduate Students

Under the Federal Direct PLUS program, parents of dependent undergraduate students may borrow annually up to the difference between the student's cost of attendance and the estimated amount of financial assistance for each dependent student. There is no aggregate maximum under this program.

The interest rate on PLUS Loans is variable and is determined annually by a formula linked to the Treasury bill rates. However, the interest rate may not exceed 9%. Repayment begins 60 days after disbursement.

South Carolina Teacher Loan Program

This loan program is intended to attract talented teachers to remain in South Carolina by offering a cancellation of their student loan. A loan recipient who becomes certified to teach in a subject area of critical need or in a designated school district has the loan cancelled at the rate of 20% for each full year of teaching up to 100%. To qualify, the student must be a resident of South Carolina attending college for the purpose of becoming a certified teacher. Employment must be in the state's public school system in an area of critical need as defined by the State Board of Education. Loan recipients who do not become certified or do not teach in an area of critical need will be required to repay the entire amount of the loan plus interest.

Because funds in the program are limited, there is a priority processing deadline of April 1. To ensure that an application is received at the South Carolina Student Loan Corporation by the deadline, it must be submitted to The Citadel Office of Financial Aid and Scholarships no later than March 15.

Governor's Teaching Scholarship Loan Program

Also established by the State of South Carolina, the Governor's Loan Program is intended to attract bright and talented South Carolina students to the teaching profession. These loans are cancelled at a rate of 20% for each year a recipient teaches in the public schools of South Carolina. Applications are available by contacting the South Carolina Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

Paul Douglas Scholarship Loan

The Paul Douglas Scholarship (PDS) is a loan/scholarship program established for outstanding high school graduates to encourage and enable them to pursue teaching careers at the preschool, elementary, or secondary level. Maximum loan amounts are $5,000 per year. Selection is based on academic performance, evidence of leadership, extracurricular participation, and the promise of service as a teacher at the preschool, elementary, or secondary level. A recipient must be a South Carolina resident or non-resident attending a South Carolina institution. These loans are cancelled on the basis of two years teaching for each year of scholarship. Applications are available by contacting the South Carolina Student Loan Corporation, P.O. Box 21487, Columbia, SC 29221.

Forms and Deadlines

To apply for financial aid at The Citadel, all students should file a *Free Application for Federal Student Aid* (FAFSA) as soon as possible after January 1. These forms are available from any high school or from a financial aid officer at any postsecondary school or college. Other forms which must be completed include default and selective service statements. Additional information may be requested by the Financial Aid Office and should be submitted promptly.

Because funds are limited, those students whose applications are completed after the deadline dates will receive consideration for aid only as funds permit. Deadline dates are as follows:

Academic year (fall and spring)	February 28
Fall only	February 28
Spring only	October 15
Summer	March 15

Applicants whose forms are not completed by June 30 should not expect to receive notification of awards prior to the beginning of fall semester. These applicants must come prepared to pay for their tuition, fees, and room and board costs and will be reimbursed if they are subsequently determined to be eligible for financial aid.

Determining Financial Need

The amount of financial aid is determined based on the FAFSA form the applicant files after January each year. This form solicits information about the applicant's family's current financial situation and produces an "expected family contribution." Adjusted gross income data from tax forms are used along with current asset information to determine family resources. Allowances are made for federal and state taxes, social security, employment (when both parents work), unusual medical and dental expenses, and family size. Other factors considered are any unusual expenses and the number of family members in college.

In its simplest definition, financial need is the difference between what a student will pay to attend college and the expected family contribution, as determined by the need analysis. If costs exceed the amount of family contribution, then the applicant has "demonstrated" financial need.

Dependent or Independent Status

Federal student aid programs are based on the premise that parents have the primary responsibility of financing their children's education. Independent students will fall into one of the following categories.

I. Students are automatically independent and therefore not required to submit parental data if they:

   a. Are 24 years old or older by Dec 31 of the award year, or
   b. Are orphans or wards of the court, or
   c. Are veterans of the armed forces, or
   d. Have legal dependents (other than a spouse), or
   e. Are a graduate or professional student, or
   f. Are married, or
   g. Have other unusual circumstances.

Satisfactory Progress

To be eligible to receive or remain eligible to receive financial aid, students must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of each 12 month period of enrollment:

1) A student must pass 24 hours in each twelve month period following initial matriculation.
2) A student must earn a grade point ratio at least sufficient for continuance on academic probation.

When mitigating circumstances exist, students whose aid is terminated because of failure to meet satisfactory progress standards may reapply by contacting The Citadel Financial Aid Committee in writing at the following address: Office of Financial Aid and Scholarships, The Citadel, 171 Moultrie Street, Charleston, SC 29409

Financial Aid Refund and Repayment Policy

Refunds

Financial aid recipients who withdraw from school are eligible to receive only that portion of the institutionally determined refund (see the Expenses section of this catalog) which exceeds the financial aid received. This policy also applies to students on whose behalf a parent has borrowed a Title IV loan. Refunds will be returned to the programs from which the student received aid.

The Higher Education Amendments of 1998, Public Law 105-244 changed substantially the way funds paid toward a student's education are to be handled when a recipient of Federal Financial Aid withdraws from school. A statutory schedule is used to determine the amount of Federal Financial Aid that has been earned based on the period the student was in attendance. Up through the 60% point in each payment period of enrollment, a pro rata schedule is used to determine how much Federal Financial Aid the student will receive. After the 60% point in the payment period of enrollment, a student has earned 100% of the Federal funds awarded for the period.

The percentage earned will be calculated based on the following schedule:

Week 1	6 percent	Week 7	43 percent
Week 2	12 percent	Week 8	50 percent
Week 3	18 percent	Week 9	56 percent
Week 4	25 percent	Week 10	60 percent
Week 5	31 percent	Week 11-16	100 percent
Week 6	37 percent		

For example, if a student has received $1,000 in Federal Financial Aid and withdraws within the first week of classes, that student will receive 6 percent ($60) of the aid award applied to total charges. The remaining $940 will be returned to the Federal Financial Aid programs in the following order.

- Unsubsidized Student Loans
- Subsidized Student Loans
- Perkins Loans
- PLUS Loans
- Federal Pell Grants
- Federal SEOG Grants
- Other Assistance under Title IV

The refund and repayment provisions mandated by the Federal government for Federal Aid Recipients apply when a student receives financial aid funds and withdraws, drops out, takes an unapproved leave of absence, fails to return from an approved leave of absence, is expelled, or otherwise fails to complete the period of enrollment for which he or she was charged.

The refund and repayment requirements DO NOT APPLY to a student who

- Withdraws, drops out, or is expelled before his or her first day of class
- Withdraws from some classes, but continues to be enrolled in other classes, or
- Does not receive funds for the period in question. (Students whose parents received a PLUS Loan are considered to have received funds and so are covered for the refund and repayment requirements.)

Repayments

If a student's non-instructional educational expenses (allowances as prescribed below) incurred up to the time of withdrawal exceed the amount of cash disbursement, the student does not owe a repayment. If cash disbursed exceeds the non-instructional costs of education incurred up to the time of withdrawal, the student does owe a repayment. This repayment is the difference between costs incurred and the actual cash refund received. Non-instructional expenses are determined by calculating the percentage of room, board, books, supplies, travel, and personal expenses incurred during the portion of the term a student is enrolled. Off-campus board and personal expenses are prorated on a weekly basis. There is no proration of on-campus room charges. A percentage of books, supplies, and travel costs is allowed based on length of enrollment.

Student aid accounts to be refunded and repaid

Once the amounts to be refunded and/or repaid are determined, the aid programs from which the student received funds will be reimbursed in the following order.

- Federal Direct Stafford/Ford loans;
- Federal Direct PLUS loans received on behalf of the student;
- Federal Perkins loans;
- Federal Pell Grants;
- Federal SEOG Grants;
- other Title IV programs;
- other federal, state, private, or institutional student financial assistance received by the student for which refunds are required;
- the student.

Other Assistance

Vocational Rehabilitation Scholarships: This program provides for education and training if the student has a physical or mental disability which is a substantial handicap to employment and if there exists reasonable expectation that vocational rehabilitation services may lead to gainful employment. Additional information is available through the Department of Vocational Rehabilitation in the student's home state.

Sirrine Scholarship: All Greenville County residents are urged to apply for this scholarship given to individuals who want to continue their education. Winners are selected on the basis of financial need and academic ability. Applications are available in the high school counselor's office.

Methodist Student Loan Fund: Loans of up to $700 per year at an interest rate of 3 percent per annum are provided by the Methodist Student Loan Fund. Repayment must start within six months after discontinuing full-time attendance. For applications, contact the Office of Loans and Scholarships, Board of Higher Education and Ministry, The United Methodist Church, P.O. Box 871, Nashville, TN 37202, or Financial Aid Office, The Citadel.

Lutheran Brotherhood Loan: Loans of up to $2,500 are available for Lutheran undergraduate students. Repayment begins six months after the date of graduation or withdrawal from school. For applications, contact Student Loan Coordinator, Lutheran Brotherhood, 701 Second Ave. South, Minneapolis, MN 55402.

Knights of Columbus: Loans of up to $1,500 are available for members and dependents of the Knights of Columbus. Repayment begins six months after graduation or withdrawal from school. For applications, contact Knights of Columbus, Student Loan Committee, P.O. Drawer 1670, New Haven, CT 06507.

College Budget Plans: Academic Management Service (A.M.S.) is one of a number of special plans by many of the larger banks which will pay college fees when due and arrange for a parent or sponsor to repay on a prearranged monthly budget schedule extending over the year. Contact The Citadel Treasurer's Office for information.

Veterans' Services: Veterans' services are administered under the umbrella of Student Financial Aid at The Citadel. Veterans' services are intended to meet the needs of students receiving benefits under Chapter 35 (Dependents; Chapter 32 (VEAP); the old G.I. Bill (Chapter 34); the new Montgomery G.I. Bill (Chapter 30); Chapter 31 (Vocational Rehabilitation); and Chapter 106, which deals with reservists from all branches of the service. Veterans who believe they have an entitlement should check with their local VA Office, the Regional Office in Columbia (1-800-827-1000), or the VA Coordinator at The Citadel.

An applicant should contact the VA Coordinator in the Financial Aid Office at The Citadel well in advance of the anticipated admission date so that the necessary documents may be obtained in order to certify attendance with the VA. All veterans and dependents receiving VA Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule card. Any changes in the veteran's course of study should be cleared with the VA Coordinator in the Financial Aid Office to ensure continuation of benefits. Any reduction in course load should be reported immediately to avoid overpayment. Transfer students are reminded that the office must have copies of all transcript evaluations made by the Registrar's Office before certification can be made to the Veterans' Administration for payment.

Citadel Scholarships

A complete listing of Citadel Scholarships may be obtained from the Office of Financial Aid and Scholarships.

Department of Intercollegiate Athletics

The mission of the Department of Intercollegiate Athletics at The Citadel is to develop, maintain, and continue to improve a well-rounded program of athletics geared to the aims and objectives of The Citadel, the Southern Conference, and the National Collegiate Athletic Association. In order to carry out this mission, all athletics personnel must be familiar with the athletics policy as approved by the Board of Visitors and the President of The Citadel:

> The Citadel policy on intercollegiate athletics includes a balanced program covering a broad spectrum of sports for men and women. The College will support this program to enable its representatives to be competitive in every respect. The Citadel will compete as a Division I institution under current NCAA and Southern Conference regulations. The athletics program will be conducted within the aims, standards and objectives of The Citadel as a comprehensive military college providing a quality education. The Department of Athletics is committed to gender and minority equity in all of its programs. In addition, for the safety and welfare of student-athletes, The Citadel maintains full-time certified trainers, a college surgeon, and special orthopedic doctors to provide medical support services.

The Citadel is a member of the NCAA with Division I-AA classification in football, and Division I Classification in all other sports. In addition, the college is a member of the Southern Conference, which is comprised of Appalachian State University, The Citadel, The College of Charleston, Davidson College, East Tennessee State University, Elon University, Furman University, Georgia Southern University, UNC-Greensboro, University of Tennessee at Chattanooga,Western Carolina University, and Wofford College.

The Sports Program

The Citadel Department of Intercollegiate Athletics sponsors 16 varsity teams including football, basketball, cross country, wrestling, indoor and outdoor track, baseball, rifle, and tennis for men; and golf, soccer, volleyball, rifle, cross country, and indoor and outdoor track for women. Each year, nearly 400 cadets participate as players, managers, or student trainers.

The Citadel's intercollegiate teams are led by qualified coaches who are concerned with the overall development of the cadet-student-athlete. The graduation rate of Citadel athletes always ranks among the best of the Southern Conference.

Facilities

Athletic facilities at The Citadel are among the finest in the Southern Conference. Home football games are played in historic Johnson Hagood Stadium, a 13,000-seat facility built in 1948. Plans are underway for renovation or replacement of the stadium. In the fall of 2001, the Altman Athletic Center opened. Located in the south end zone, the Center houses home and visitors' locker rooms, officials' rooms, and an entertainment area for The Citadel Brigadier Foundation.

McAlister Field House, which houses the Athletic Department staff and several coaches' offices, was built in 1939 and renovated in 1989. Seating 6,000 for Bulldog basketball games, McAlister Field House also serves as home of the volleyball team as well as the site for graduations, concerts and a variety of other events. New women's locker rooms have been added to the Field House.

Next to McAlister Field House is Vandiver Hall which opened in 1991 and provides the Bulldog soccer, baseball, wrestling, golf, volleyball, cross-country and track and field teams with a modern and well-equipped facility. Dressing and locker rooms, a golf driving range, a wrestling room, and a baseball batting tunnel are a few of the features of Vandiver Hall.

Seignious Hall, which is located directly behind Vandiver Hall, houses the football coaches' offices and the football locker room, along with a top of the line training room. Also located in this facility are a spacious weight room and equipment room.

The Donald C. Bunch Courts at the Earle Tennis Center, site of the 2001 Southern Conference Men's and Women's Tennis Championships, receive a significant amount of play year-round. The women's soccer team utilizes WLI Field along the Ashley River as well as Johnson Hagood Stadium while the track and field teams use a track surrounding one of the football team's two practice fields.

In April 1997, The Citadel's baseball team moved into the new, state-of-the-art Joseph P. Riley, Jr. Park, located on the banks of the Ashley River. The 6,000-seat park, which serves as home of the annual Southern Conference Baseball Championship, features the Bulldog locker room, luxury suites, an indoor batting tunnel and a major league style matrix board. The Citadel utilizes nearby College Park as a practice site during the year.

Scheduled for the fall of 2005 is the completion of a new indoor rifle range. Located behind WLI Field along the Ashley River, this facility will allow for general firearms training for the entire Corps of Cadets, enhanced ROTC firearms training, and increased opportunities for Rifle and Pistol Team practices.

The Citadel Honors Program

The Citadel Honors Program provides exceptional learning experiences for outstanding students whose past records indicate that they can take full advantage of the personal student-teacher relationship which the tutorial-based honors curricula will provide. Honors courses will augment the current curriculum of the college by offering for those selected students an experimental and alternate means of education grounded in the methods of intellectual inquiry.

The Honors Program is an autonomous program of the college, with an Honors Director serving as the head of the program. The Director is responsible for recruiting and admitting Honors students, reviewing courses which are proposed to meet Honors requirements and selecting those which will be included in Program offerings, critiquing Honors courses and the performance of the faculty offering them, establishing and enforcing entrance and exit requirements, serving as the Honors Advisor for all Honors students, establishing and monitoring the operating budget for the Honors Program, and coordinating the Honors Program requirements with those of the academic majors.

The Honors Council is comprised of at least four current or former Honors Faculty and two Honors students. The heavy involvement of the Honors students in this Council is intended to ensure that addressing the needs of these exceptional students will continue to be the primary goal of The Citadel Honors Program. The Honors Council will advise and assist the Honors Director in the governance of the program.

The Honors Students' Association is comprised of academically proficient participants or past participants in the Honors Program. Its purpose is to promote closer association among participants in the Honors Program, to provide a student forum for discussion of the Honors Program and its operation, and to assist the Honors Council.

Admission and Retention of Students

Students must apply separately for admission to the Honors Program, in addition to applying for admission to the college. The Honors Director will evaluate all applications and offer acceptances based upon the student's standardized test scores, class rank, extracurricular activities, and intellectual and academic promise. Personal interviews, at least by telephone, are required as part of the application process. Applications should be to Dr. Jack W. Rhodes, Honors Program, The Citadel, 171 Moultrie Street, Charleston, SC 29409-6370. Phone: 843-953-3708. Email: rhodesj@citadel.edu. The suggested deadline for applying is January 15.

Students with outstanding grades after their first semester at The Citadel may apply for admission to the Honors Program at that time. Also, deserving students may be admitted to individual Honors courses on a space-available basis; in such cases, the Honors courses will meet Core Curriculum or General Elective requirements as appropriate.

To remain in good standing, students in the Honors Program must maintain at least a 3.0 in their Honors courses and a 2.8 overall. The Honors Council will review the records of all Honors students who fall below this average and take appropriate action, which might be either separation from the Honors Program or the establishment of a probationary period.

Honors Student Advisors

One faculty member in each academic department serves as academic advisor to all the Honors Program students majoring in that discipline. In addition, the Honors Director helps advise students concerning their schedules, courses of study, and other matters as needed.

Honors Program Curriculum

The Honors Program is designed to provide an exceptionally broad background of cultural knowledge and learning skills which students can then apply to their chosen areas of academic specialization. Most of the Honors Program curriculum will come in courses designed to be taken in lieu of Core Curriculum requirements, and most will, therefore, be taken in the freshman and sophomore years. The other Honors courses will take the place of General Electives. The emphasis in Honors courses will be not primarily acceleration, but enrichment. The courses will go into extra depth, examining more closely the significance and implications of the material studied or presenting that material in a broader cultural context. In general, it is expected that Honors courses will employ discussion in order to establish habits of rigorous inquiry and intellectual independence.

The plan behind the curriculum is to create an environment of learning in which the students' intellectual habits can be formed. The patterns and processes of intellectual and scholarly inquiry will be taught, not merely the results of other people's having conducted that inquiry. Each Honors course will have a tutorial foundation; individual students will meet with their instructors frequently (usually, once every week) to discuss and develop ongoing writing, research, and laboratory projects.

Curricular Requirements

Students majoring in one of the sciences or engineering will be required to complete the following Honors courses: Honors Personal and Professional Development I, II, and III; Honors English I, II, III, and IV; Honors History I and

II; Honors Mathematics I and II; Honors Social Science Project; and one Honors Seminar or Research Project.

Students majoring in one of the liberal arts or social sciences will be required to complete the following Honors courses: Honors Personal and Professional Development I, II, and III; Honors English I, II, III, and IV; Honors History I and II; Honors Social Science Project; and two Honors Seminars or Research Projects (or one of each).

Freshman Honors Courses

HONR 101 and 102 *Honors English I & II: The Aesthetic Context* Three Credit Hours Each Semester

This sequence will introduce students to the artistic achievements, chiefly literary, of Western and possibly some non-Western cultures, within the context of the major intellectual and ideological currents of those cultures. Techniques of prose composition will be taught as the students engage these issues in writing.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirements in freshman English by successfully completing HONR 101 and 102 ("Honors English: The Aesthetic Context") instead of ENGL 101 and 102 ("Composition and Literature"). Students who successfully complete the first semester of the Honors Program will be allowed to enroll in ENGL 102 and may fulfill their Core Curriculum requirement in freshman English by successfully completing that course.

HONR 103 and 104 *Honors History I & II: The Social, Political, and Historical Context* Three Credit Hours Each Semester

This sequence will introduce students to the social, political, and historical events involved in the development of Western and possibly some non-Western cultures, emphasizing the interplay between the way people of the past saw themselves and the universe and the way they shaped their environment.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in history by successfully completing HONR 103 and 104 ("Honors History: The Social, Political, and Historical Context") in lieu of HIST 103 and 104 ("History of Western Civilization"). If a student successfully completes the first semester of Honors History and then ceases participation in the Honors Program, the student may complete the Core Curriculum requirement in history by completing HIST 104 (the second semester of "History of Western Civilization").

HONR 107 and 108 *Honors Mathematics I and II: The Analytic Context* Four Credit Hours Each Semester

This sequence will teach the calculus within the context of its development from the civilization which produced it and its impact on civilization since. Topics covered will closely match those in MATH 131 and MATH 132. Students enrolled in the Honors Program may meet the Core Curriculum requirement in mathematics by successfully completing HONR 107/108 ("Honors Mathematics: The Analytic Context") in lieu of MATH 131/32, MATH 104/105, MATH 104/106, MATH 105/106, or MATH 106/107. Students who successfully complete the first semester of Honors Mathematics and then cease to participate in the Honors Program can fulfill the Core Curriculum requirement in mathematics by completing MATH 105, MATH 107, or MATH 132.

Sophomore Honors Courses

HONR 201 and 202 *Honors English III & IV: Studies in British and American Literature* Three Credit Hours Each Semester

This sequence will teach one or more themes, genres, modes, schools, periods, or authors in British and American literature. The techniques of prose composition will be reinforced and developed.

Students enrolled in the Honors Program may meet the college's Core Curriculum requirement in sophomore English by successfully completing HONR 201 and 202 in lieu of ENGL 201 and 202. Students who successfully complete the first semester of sophomore Honors English and then cease participation in the Honors Program will be allowed to enroll in ENGL 202, 215, 218, or 219 and may fulfill the sophomore Core Curriculum requirement in English by successfully completing that course. Students majoring in English will be required to complete ENGL 203 and ENGL 204. In that case, HONR 201 will satisfy the departmental requirement to take either ENGL 211 or 212, and HONR 202 will count as an English elective.

HONR 203 *Honors Social Science Project* Three Credit Hours

This introduction to the social sciences will incorporate an interdisciplinary, integrative group project in the social sciences, drawing upon the context provided by the freshman Honors sequence. Students may meet the college's Core Curriculum Social Science requirement by completing this one semester course.

Upper-Level Honors Courses

HONR 300 *Honors Seminar: Special Topics* Three Credit Hours
Often interdisciplinary, this seminar will investigate a field of study not addressed—at least, not in much detail—within the framework of the normal curriculum. It will be suitable for students in all majors. Topics will vary.

HONR 400/401 *Honors Directed Research Project I & II* Three Credit Hours Each Semester
Juniors or seniors conduct research under the direction of faculty members. The research need not be original with the student but may be part of a project which the faculty member is currently conducting or has conducted in the past. An extradepartmental second reader or evaluator will be required for all projects.

Multilevel Honors Courses

HONR 211, 311 and 411 *Honors Personal and Professional Development I, II, and III* Three Credit Hours Upon completion of HONR 411
Taught entirely in tutorial and discussion, this sequence directs students in a three-year period of research, writing on the subject of their professional goals, encouraging them to envision their leadership in their future profession and guiding them in exploring through research and writing the ideals as well as the facts of that profession. Three credit hours will be granted upon completion of HONR 411.

Honors Program Recognition

Students who complete all Honors Program requirements will be recognized as Honors Program graduates in their college commencement ceremony. They will receive an Honors Program certificate plus an Honors Seal on their Citadel diploma. A notation will be added to their official college transcript to indicate they have completed the requirements of the Honors Program.

Students admitted to the Honors Program after their first semester at The Citadel will be required to complete at least 18 semester hours of Honors courses, plus HONR 211, 311, and 411. They will be recognized as Honors Program Graduates in their commencement ceremony, and a notation will be added to their official college transcript to indicate that they have fulfilled the requirements of the Honors Program. Unlike Honors students who have completed the full program, they will not receive an Honors Seal on their diplomas.

The Undergraduate Curriculum

The curriculum is the major instrument by which an institution whose purpose is to provide a liberal education passes along to the rising generation the intellectual heritage of all people. This large treasury includes not only valuable knowledge acquired over the centuries but also the modes of thought by which that knowledge has been acquired.

The curriculum provides an orderly sequence of academic achievements through courses which exhibit a solid body of subject matter and employ scholarly methods which are typical of their discipline and whose subject matter and methods are useful for understanding other academic matters beyond the confines of their own discipline. Such courses have been divided traditionally into two groups: the core curriculum, through which students are initiated into the methods and subjects of several academic disciplines that represent the full scope of academic study, and the academic major curriculum, through which students pursue intensive study in a single academic field.

Through this objective and intellectually rigorous method of education, The Citadel prepares not only professional scholars but also leaders of society in all walks of life.

CITADEL 101: FIRST YEAR SEMINAR*

One Credit Hour

Citadel 101 provides the academic and life skills to help students make a successful transition to the unique environment of The Citadel. Students will develop their academic skills (reading, listening, note taking, test taking, time management, research, computer competency, etc.) and will be introduced to campus facilities, resources, and support services. Some attention will also be given to lifestyle and relationship issues.

A student must have the approval of the Associate Provost to withdraw from Citadel 101.

**First Year Seminar topics will be covered in introductory engineering courses for engineering majors. Civil Engineering majors will enroll in CIVL 102, and Electrical Engineering majors will enroll in ELEC 104.*

The Core Curriculum

The core curriculum is the body of courses which constitutes the center or nucleus of a Citadel education. The disciplines represented in the core are selected according to two standards: the rational, inasmuch as the courses encompass each of the basic methodologies employed in academic pursuits, and the historical, inasmuch as the centuries have confirmed the durability and the serviceability of the disciplines involved.

While the courses of the core are diverse, they nevertheless constitute a unit of the college curriculum, one that coalesces at a higher level of abstraction than other portions of the curriculum, because the core courses examine the foundations of particular, central disciplines in the perspective of the whole academic enterprise, the search for truth. These courses, therefore, have a decidedly philosophical cast, and for this reason they rightly emphasize the ultimate bases of the discipline, the validity of its method, its essential elements, and its distinctive character.

In the core curriculum, earlier education reaches a completeness and a fullness of perspective for which the student was not previously ready. Later studies, while they will go deeper and further into a particular field, will necessarily require the student's attention to be more narrowly focused. The core curriculum also captures the academic quality of higher education better than most arrays of courses since through core courses the student examines the forms which knowledge takes, whereas later studies will concentrate on the content of knowledge in a presupposed form. Furthermore, the level of intellectual achievement in the core courses is for most students higher than they will ever reach again, except in the confines of the single discipline in which they major.

Since the core curriculum is fundamental to all further studies, the entire faculty shares authority over it, although some departments have special responsibility for the parts which they teach. The core is placed early in a student's career because it inculcates those skills essential for further study and for the life of an educated person, such permanent and profound dispositions of the spirit as the habits of objectivity, consistency, preciseness, orderly deliberation, prudent judgement, and respect for the life of the mind. These intellectual powers are developed by students seriously abandoning themselves to mature study in the academic disciplines which constitute our core.

The Standing Core Curriculum Oversight Committee of the college is charged to monitor the overall appropriateness and effectiveness of the core curriculum courses, to study and determine the benefit accruing to students from these courses, to examine whether the purposes for which the core was designed are being realized, and to recommend changes and modifications within particular courses or with the overall Core Curriculum.

Areas of Study

Within The Citadel's core curriculum, study in five areas—English, history, mathematics, science, and social science—is required of all students regardless of their academic majors. For all students other than those pursuing professional preparations in the areas of civil and electrical engineering, education, and the teaching track of physical education, study of a foreign language is also required. Each course, or sequence of courses, which addresses a core curriculum requirement incorporates, where appropriate, all the following skills: written communications, critical thinking, logical reasoning, and resource and reference usage. Students are expected to use proper grammar in all their course work, whether written or oral. Proper usage is expected at the college-level and is required by all professors.

English The use of language is at once the most essential, the most sophisticated, and the most practical of all human arts and is a skill indispensable to further endeavors in any field. In the use of language and ideas, English studies require the student to assess great works of literature. This obliges students to become adept in handling the important values of civilization and also to become sensitive to the subtle nuances that great writers have found in them. Such studies also refine aesthetic sense and thereby teach, among other things, to use language with appropriate grace and force. Literary studies contribute to the development of a student's character by requiring the student to evaluate human conduct and judge what people have made of their lives. English studies are central to a college education because they are a forum where the rival and complementary claims of philosophy, practicality, science, ethics, politics, and religion come alive in concrete situations.

The primary benefits in studying English come when a student engages in dialogues with the works of great authors, listening to their words receptively and responding to them critically. Prerequisite to this encounter are skills in writing and literary analysis.

Each student at The Citadel is required to complete four semesters of English. The first semester, ENGL 101, is basic composition, and the Department of English is responsible for determining which entering students are sufficiently prepared to bypass this course. The transcripts of those students who are permitted to bypass this course will reflect ENGL 101 as if it had been completed successfully on a Pass/Fail basis at The Citadel.

For students who participate in ENGL 101, successful completion will be based on acquired writing skills, and the course (graded on a scale of A, B, C, U) must be completed with the grade of “C” or higher.

It is expected that the second course in English, ENGL 102, will be bypassed only by exceptionally well-prepared students. Should this circumstance occur, the transcript will reflect ENGL 102 as was described for ENGL 101 above. This course continues to develop the writing skills of the student, introduces the student to various literary forms, and prepares the student to undertake a two-semester literature sequence.

Two semesters of literature complete the core curriculum requirement in English. All students must take ENGL 201 (Major British Writers I) and then may choose one additional course from among ENGL 202 (Major British Writers II), ENGL 215 (Masterpieces of American Literature), ENGL 218 (Masterpieces of World Literature I), or ENGL 219 (Masterpieces of World Literature II).

Mathematics Much of mathematics deals with the study of number, form, arrangement, and associated relationships, using rigorously defined literal, numerical, and operational symbols. The mathematical world, then, is one of extraordinary purity and completeness, and the study of it provides a precision of thinking and a clarity of knowledge that could hardly be imagined without this unique discipline.

Mathematics is a product of human thought which does not depend on empirical observations, yet it is admirably adapted to concrete interpretations in the physical and social sciences. Its purely theoretical foundation confirms the objectivity of scientific findings, and its transferability to discrete sciences provides a bond of unity among them. Mathematics, then, comprises both abstraction and the application of the results obtained by abstraction to specific problems. Of these aspects, the basic one is abstraction. Because mathematics is abstract and general, it is applicable to problems which arise in widely different areas.

Core studies in mathematics are designed to enhance students' facility in mathematical operations, advance them as far into mathematics as their talent and preparation will permit, increase their understanding of mathematical applications in other fields, and reveal the nature of mathematics as a discipline in its own right.

Each student is required to complete a two-semester sequence in mathematics. Depending on the student's major, that sequence will be MATH 104/105 or MATH 104/106 or MATH 105/106 or MATH 106/107 or MATH 131/132. The honors sequence, HONOR 107/108, may be taken in lieu of any of these sequences.

History History teaches students information about the past which helps to explain the human condition, and, more important, teaches students to think about human affairs as historians do.

The information in the core history courses concerns matters of major significance in the human story. It is sufficiently remote to be viewed dispassionately and comprehensively, and it is of a sufficient quantity to display major forces at work over a long period.

To begin thinking as a historian does, the student is required to encounter a variety of evidence about past events, to weigh it by several standards, and to discern in it causes, effects, theories, facts, inconsistencies, and the like; in addition, the student is required to attempt, according to the standards of the discipline, a narrative assessment of what the evidence reveals about the past.

What a student gains from such a study of history, besides the accumulation of information and the rigorous exercise of mental faculties, is the ability to view human activity in its temporal and other dimensions and also from a large and objectively framed perspective, develop a balanced regard for both concrete deeds of people and for the larger patterns which these deeds constitute.

Each student is required to complete two semesters of History of Western Civilization, HIST 103/104, or two semesters of History of World Civilization, HIST 105/106.

Science Studies in a science require a student to make observations about the physical world, to reason about observations according to scientific standards, and to begin to understand the system of principles that control nature.

The method of science is to make and record observations about material phenomena, to arrange the accumulated data in a systematic way, to develop inductively hypotheses which explain the data, and finally to design and perform experiments which test these hypotheses and their domain. Only when these hypotheses are independently corroborated and exhibit predictive capability can they be allowed to stand as scientific theory. When a student practices the scientific methods and learns to account for every aspect of the phenomena; to construct a hypothesis which is based upon scientific observations which also has general application; to follow hunches and intuitions but to hold them in suspense so as to contrive a rational explanation; and then to test the explanation by an experiment which publicly applies it to a demanding case, the student develops a healthy understanding of nature and a firmly established appreciation for the marvels of the physical world.

Each student must complete (4) semesters of science. This requirement must be met by two sequences of two semesters each in Biology, Chemistry, or Physics. No more than one sequence is to be completed in any single science. Students pursuing a degree in the Department of Health, Exercise and Sport Science meet the requirements for the study of biology through the three semester sequence, BIOL 101/111, BIOL 317/327, and BIOL 318/328.

Social Sciences The ultimate goal of the social sciences is the understanding of those aspects of human experience that are social, political, economic, and psychological. By applying a variety of methods including hypothesis testing, quantification, and statistical analysis, the social sciences seek to construct empirically based theories of human behavior. Because the social sciences differ from the natural sciences in subject matter and from the humanities in method, they occupy a distinctive position among the academic disciplines. The social sciences are to human phenomena what the natural sciences are to natural phenomena.

The social sciences are important because of the significance of social theories in understanding human conduct and because of the increasing reliance on the methods, techniques, concepts, and vocabularies of the social sciences.

Each student is required to complete a one-semester course in the social sciences, and this course must be selected from among the following: ANTH 202 (Cultural Anthropology), HONR 203 (Honors Social Science Project), PSCI 102 (American National Government), PSYC 201 (General Psychology), and SOCI 201 (Introduction to Sociology).

Foreign Languages In the "global village," we can no longer afford to live in linguistic isolation, expecting to influence those who do not know our language while remaining ignorant of theirs. It is more vital now than ever that we become proficient in foreign languages and knowledgeable about the cultures of their speakers.

Not only diplomats and military personnel, but also business people, engineers, scientists, doctors, lawyers, and teachers can expect to spend more time abroad themselves, working and travelling in other countries. Command of a foreign language enables them to be far more successful in their work and more comfortable in their surroundings.

The benefits of language study are many and varied: practical ability to communicate with non-English speakers; greater understanding of our own culture through investigation of another; increased exposure to the thought of significant world authors; and enhanced appreciation of the richness of English.

Through marshaling their faculties to synthesize instantly vocabulary, grammar, syntax, and idiom in coherent response to a simple verbal question, students train their minds to deal with the abstract and learn mastery of any problem with which life may confront them.

Other than majors in education, physical education (teaching track), and civil or electrical engineering, each student is required to study the same foreign language — French, German, or Spanish — through the 202 level. The Department of Modern Languages offers optional placement testing each fall for entering students.

Physical Education The required physical education program is designed to provide an exemplary environment and experiences which contribute to an improved quality of life for the student. The program offers basic instruction in adult and lifetime physical fitness, healthful living, physical activities and recreational sports which are of immediate and lasting value. Each cadet is required to complete RPED 250, Contemporary Health Foundations, and RPED 251, Foundations of Fitness and Exercise, as well as two different activity courses.

The Major Curriculum

Building on the knowledge and skills acquired through study of core curriculum courses, the curriculum of each major consists of carefully selected required courses complemented by a variety of electives. These electives fall in one of the following categories:

Elective refers to a course which is required for graduation but does not meet a core or major requirement.

Approved Elective refers to a course which is required to meet major requirements but must be selected from a list of courses determined by the individual department.

Non-departmental Elective refers to a course which is required for graduation, does not meet core or major requirements, and must be taken outside the major department. Students are encouraged to study areas outside the major to ensure as broad an educational experience as is practical.

In addition to providing the student with a sound foundation in the discipline, work offered in each major course of study stresses written and oral communications and ensures that each student is able to use the computer as a tool within the discipline.

Courses of Study

The following pages contain a detailed schedule of the curriculum required for each degree according to the major subject selected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

Geography courses are offered in the Department of History, fine arts courses in the School of Education, philosophy courses in the Department of English, computer science courses in the Department of Mathematics and Computer Science, and sociology and anthropology courses in the Department of Political Science and Criminal Justice.

Major work is offered in the following areas: biology; business administration; chemistry; civil engineering; computer science; criminal justice; education; electrical engineering; English; French; German; health, exercise, and sport science; history; mathematics; physics; political science; psychology; and Spanish. A thorough premedical preparation is also available through the B.A. Chemistry or the B.S. Biology.

BIOLOGY MAJOR
First Semester

FRESHMAN YEAR

Introduction to Biology1	BIOL	130	3	(3,0)*
Introduction to Biology1 Laboratory	BIOL	131	1	(0,3)
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,2)
Composition and Literature	ENGL	101	3	(3,0)
Microcomputer Applications	CSCI	110	3	(3,0)
First Year Seminar	ORTN	101	1	(2,0)
Required Physical Education	RPED		0	(0,1)
+1st Year Basic ROTC				

SOPHOMORE YEAR

Cell Biology	BIOL	205	4	(3,3)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry I Laboratory	CHEM	217	1	(0,3)
Major British Writers	ENGL	201	3	(3,0)
Applied Calculus I	MATH	106	3	(3,0)
Required Physical Education	RPED	250	2	(0,2)
+2nd Year Basic ROTC				

JUNIOR YEAR

Biology Elective**	BIOL		3(4)	(var)
College Physics I	PHYS	203	3	(3,0)
College Physics I Laboratory	PHYS	253	1	(0,2)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Biology Elective**	BIOL		3(4)	(var)
Biology Elective**	BIOL		3(4)	(var)
A Modern Language			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order. Var = varies according to course.

**Biology electives must include at least one course from each of the following three areas. Cell and Molecular Biology: BIOL 310, BIOL 401, BIOL 402, BIOL 424; Ecology and Field Biology: BIOL 314, BIOL 408, BIOL 409, BIOL 410. BIOL 426: Organismal Biology: Biology 203, BIOL 208, BIOL 301,BIOL 302, BIOL 307, BIOL 322, BIOL 403, BIOL 419.Two additional biology electives must be chosen fom the above courses and BIOL 320, BIOL 412, BIOL 414, BIOL 427.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BIOLOGY MAJOR
Second Semester

FRESHMAN YEAR

Introduction to Biology II	BIOL	140	3	(3,0)*
Introduction to Biology II Laboratory	BIOL	141	1	(0,3)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,2)
Composition and Literature	ENGL	102	3	(3,0)
Statistical Methods	STAT	160	3	(3,0)
Social Science Elective			3	(3,0)
Required Physical Education	RPED		0	(0,1)
+1st Year Basic ROTC				

SOPHOMORE YEAR

Genetics	BIOL	308	4	(3,3)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry II Laboratory	CHEM	218	1	(0,3)
English, American, or World Literature	ENGL		3	(3,0)
Applied Calculus II	MATH	107	3	(3,0)
Elective			3	(3,0)
Required Physical Education	RPED	251	2	(2,0)
+2nd Year Basic ROTC				

JUNIOR YEAR

Biology Elective**	BIOL		3(4)	(var)
College Physics II	PHYS	204	3	(3,0)
College Physics II Laboratory	PHYS	254	1	(0,3)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Ecology	BIOL	406	4	(3,4)
Biology Elective**	BIOL		3(4)	(var)
A Modern Language			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: Required hours for the biology major vary from 126 to 131 (depending on choice of biology electives), plus the credit hours from successful completion of RPED 250, RPED 215, and all required ROTC courses.

PRE-BUSINESS ADMINISTRATION
First Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	101	3	(3,0)*
Biology, Chemistry, or Physics			4	(3,2)
Microcomputer Applications	CSCI	110	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
**Major British Writers	ENGL	201	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
**Principles of Macroeconomics	BADM	201	3	(3,0)
**Applied Calculus I	MATH	106	3	(3,0)
Intro to Fin. Acct. and Reporting	BADM	211	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

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*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either sophomore semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PRE-BUSINESS ADMINISTRATION

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

SOPHOMORE YEAR

**Communications in Business	BADM	216	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
**Principles of Microeconomics	BADM	202	3	(3,0)
**Business Statistics I	BADM	205	3	(3,0)
Accounting for Decision-Making	BADM	212	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

NOTE: Students in Pre-Business Administration are expected to be admitted into the Business Administration Major after the sophomore year. Admission into the Business Administration Major is contingent upon earning a passing grade on each of the following courses that provide the foundation for the major and earning a cumulative GPR of at least 2.000 on these five courses: BADM 202, BADM 205, BADM 211, BADM 212, and BADM 216.

Students who are not qualified to move into the Business Administration Major will not be permitted to enroll in 300- or 400-level Business Administration courses and will be counseled to consider another major.

BUSINESS ADMINISTRATION MAJOR
First Semester

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)*
**Legal and Ethical Environment of Business	BADM	305	3	(3,0)
**English, American, or World Literature	ENGL		3	(3,0)
Principles of Management	BADM	325	3	(3,0)
**Business Elective	BADM		3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

***Production Management	BADM	410	3	(3,0)
***Leadership in Organizations	BADM	371	3	(3,0)
Business Elective	BADM		3	(3,0)
***Non-Departmental Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.
**May be taken either semester of the junior year.
***May be taken either semester of the senior year.
+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BUSINESS ADMINISTRATION MAJOR
Second Semester

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
Organization Theory and Behavior	BADM	328	3	(3,0)
**Marketing Principles	BADM	309	3	(3,0)
**Business Computer Applications	BADM	317	3	(3,0)
**Business Finance	BADM	321	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

***Strategic Management	BADM	422	3	(3,0)
***Social Science Core Course			3	(3,0)
Business Elective	BADM		3	(3,0)
Business Elective	BADM		3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

BUSINESS ADMINISTRATION MAJOR
Accounting Concentration
First Semester

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)*
Intermediate Financial Accounting I	BADM	300	3	(3,0)
Managerial Accounting	BADM	302	3	(3,0)
Legal and Ethical Environment of Business	BADM	305	3	(3,0)
Marketing Principles	BADM	309	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Production Management	BADM	410	3	(3,0)
Auditing	BADM	416	3	(3,0)
Accounting Information Systems	BADM	427	3	(3,0)
**Non-Departmental Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

**May be taken in either semester.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

BUSINESS ADMINISTRATION MAJOR
Accounting Concentration
Second Semester

JUNIOR YEAR

Biology, Chemistry or Physics			4	(3,2)
Intermediate Financial Accounting II	BADM	301	3	(3,0)
Commercial Law	BADM	318	3	(3,0)
Business Finance	BADM	321	3	(3,0)
Organization Theory and Behavior	BADM	328	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

**Strategic Management	BADM	422	3	(3,0)
**Social Science Core Course			3	(3,0)
Advanced Financial Accounting	BADM	402	3	(3,0)
Income Taxation	BADM	312	3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

B.S. CHEMISTRY MAJOR
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,3)
Applied Calculus I	MATH	106	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry I Laboratory	CHEM	217	1	(0,3)
Physics with Calculus I	PHYS	221	3	(3,0)
Physics with Calculus I Laboratory	PHYS	271	1	(0,2)
A Modern Language			3	(3,0)
Social Science Core Course			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Quantitative Analysis	CHEM	300	4	(3,3)
Physical Chemistry I	CHEM	305	3	(3,0)
**Advanced Chemistry Lab	CHEM		1	(0,3)
A Modern Language			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Inorganic Chemistry I	CHEM	401	3	(3,0)
Biochemistry	CHEM	409	3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Senior Research	CHEM	419	3	
***Approved Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**CHEM 315 or CHEM 460

***Approved Electives—BIOL 308, 310, 421, 424, 427; CHEM 402, 404, 410; MATH 303, 335, 343, 344, 381, 403, 411, 422, 470; PHYS 301, 307, 308, 315, 320, 323, 403, 405, 409, 410.

Note: Some of the courses have prerequisites not listed in the minimum requirements for the BS Chemistry program.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. CHEMISTRY MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,3)
Applied Calculus II	MATH	107	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED			(0,1)

SOPHOMORE YEAR

English, American, or World Literature	ENGL		3	(3,0)
Physics with Calculus II	PHYS	222	3	(3,0)
Physics with Calculus II Laboratory	PHYS	272	1	(0,2)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry II Laboratory	CHEM	218	1	(0,3)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Instrumental Methods	CHEM	302	4	(2,4)
Physical Chemistry II	CHEM	306	3	(3,0)
Physical Chemistry II Laboratory	CHEM	316	1	(0,3)
Chemical Information	CHEM	308	2	(2,0)
A Modern language			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
**Approved Chemistry Elective	CHEM		3	(3,0)
Senior Research Project	CHEM	420	3	
+2nd Year Advanced ROTC				

**Approved Chemistry Electives—CHEM 402, 404, 410

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

B.S. CHEMISTRY MAJOR
Biochemistry Specialty
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,3)
Applied Calculus I	MATH	106	3	(3,0)
Introduction to Biology I	BIOL	130	3	(3,0)
Introduction to Biology I Laboratory	BIOL	131	1	(0,3)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry I Laboratory	CHEM	217	1	(0,3)
Physics with Calculus I	PHYS	221	3	(3,0)
Physics with Calculus I Laboratory	PHYS	271	1	(0,2)
A Modern Language			3	(3,0)
Social Science Core Course			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Elective			3	(3,0)
Quantitative Analysis	CHEM	300	4	(3,3)
Physical Chemistry I	CHEM	305	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Elective			3	(3,0)
Inorganic Chemistry I	CHEM	401	3	(3,0)
Biochemistry	CHEM	409	3	(3,0)
Biochemistry Laboratory	CHEM	460	1	(0,3)
Elective			3	(3,0)
Senior Research	CHEM	419	3	
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. CHEMISTRY MAJOR
Biochemistry Specialty
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,3)
Applied Calculus II	MATH	107	3	(3,0)
Introduction to Biology II	BIOL	140	3	(3,0)
Introduction to Biology II Laboratory	BIOL	141	1	(0,3)
+1st Year Basic ROTC				
Required Physical Education	RPED			(0,1)
SOPHOMORE YEAR				
English, American, or World Literature	ENGL		3	(3,0)
Physics with Calculus II	PHYS	222	3	(3,0)
Physics with Calculus II Laboratory	PHYS	272	1	(0,2)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry II Laboratory	CHEM	218	1	(0,3)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
Physical Chemistry II	CHEM	306	3	(3,0)
Physical Chemistry II Laboratory	CHEM	316	1	(0,3)
Chemical Information	CHEM	308	2	(2,0)
Biochemistry II	CHEM	410	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Instrumental Methods	CHEM	302	4	(2,4)
Approved Biology Elective	BIOL		4	(3,3)
Elective			3	(3,0)
Senior Research Project	CHEM	420	3	
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

B.A. CHEMISTRY MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,3)
Applied Calculus I	MATH	106	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Organic Chemistry I	CHEM	207	3	(3,0)
Organic Chemistry I Laboratory	CHEM	217	1	(0,3)
College Physics I	PHYS	203	3	(3,0)
College Physics I Laboratory	PHYS	253	1	(0,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Quantitative Analysis	CHEM	300	4	(3,3)
History of Western or World Civilization	HIST		3	(3,0)
Elective			3	(3,0)
Physical Chemistry I	CHEM	305	3	(3,0)
Physical Chemistry I Laboratory	CHEM	315	1	(0,3)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Basic Inorganic Chemistry	CHEM	401	3	(3,0)
Chemistry Senior Thesis	CHEM	425	2	(2,0)
Approved Elective	CHEM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

ROTC hours (credit, lectures, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.A. CHEMISTRY MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)*
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,3)
Applied Calculus II	MATH	107	3	(3,0)
Social Science Core Course			3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

English, American, or World Literature	ENGL		3	(3,0)
Organic Chemistry II	CHEM	208	3	(3,0)
Organic Chemistry II Laboratory	CHEM	218	1	(0,3)
College Physics II	PHYS	204	3	(3,0)
College Physics II Laboratory	PHYS	254	1	(0,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Physical Chemistry II	CHEM	306	3	(3,0)
Physical Chemistry II Laboratory	CHEM	316	1	(0,3)
History of Western or World Civilization	HIST		3	(3,0)
Instrumental Methods	CHEM	302	4	(2,4)
Chemical Literature	CHEM	308	2	(2,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Chemistry Senior Thesis	CHEM	426	2	(2,0)
Approved Elective	CHEM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

CIVIL ENGINEERING MAJOR
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
Introduction to Civil and Environmental Engineering	CIVL	100	2	(0,4)
Required Physical Education	RPED	250	2	(2,0)
+1st Year Basic ROTC				

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Physics with Calculus I	PHYS	221	3	(3,0)
Physics with Calculus I Laboratory	PHYS	271	1	(0,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Surveying	CIVL	205	3	(3,0)
Surveying Laboratory	CIVL	235	1	(0,2)
Computer Application for Civil and Environmental Engineers	CIVL	209	2	(1,2)
Required Physical Education	RPED		0	(0,1)
+2nd Year Basic ROTC				

JUNIOR YEAR

Dynamics	CIVL	301	3	(3,0)
Mechanics of Materials	CIVL	304	3	(3,0)
Transportation Engineering	CIVL	305	3	(3,0)
Materials Laboratory	CIVL	307	1	(0,2)
Introduction to Environmental Engineering	CIVL	312	3	(3,0)
Engineering Administration	CIVL	314	2	(2,0)
Measurements, Analysis, and Modeling for CEE Systems	CIVL	330	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR*****

Reinforced Concrete Design	CIVL	404	3	(3,0)
Water and Wastewater Systems	CIVL	408	3	(3,0)
Introduction to Geotechnical Engineering	CIVL	409	3	(3,0)
Fluid Mechanics Laboratory	CIVL	418	1	(0,2)
Social Science Core Course			3	(3,0)
****Technical Elective			3	
+2nd Year Advanced ROTC				

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

*Represents semester credit, lecture, and laboratory hours, in that order.

**Select CIVL 422, CIVL 423, CIVL 424, or CIVL 425.

***To be selected from an approved list of courses in the humanities or social sciences.

*****All freshman and sophomore level engineering, science, and mathematics courses must be successfully completed prior to enrolling in senior level classes.

CIVIL ENGINEERING MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
Engineering Drawing	CIVL	101	2	(0,4)
Required Physical Education	RPED	251	2	(2,0)
+1st Year Basic ROTC				

SOPHOMORE YEAR

English, American, or World Literature	ENGL		3	(3,0)
Physics with Calculus II	PHYS	222	3	(3,0)
Physics with Calculus II Laboratory	PHYS	272	1	(0,2)
Applied Mathematics I	MATH	234	4	(4,0)
Statics	CIVL	202	3	(3,0)
Geomatics	CIVL	207	3	(3,0)
Geomatics Laboratory	CIVL	237	1	(0,2)
Required Physical Education	RPED		0	(0,1)
+2nd Year Basic ROTC				

JUNIOR YEAR

Highway Engineering	CIVL	302	3	(3,0)
Asphalt and Concrete Laboratory	CIVL	327	1	(0,2)
Structural Analysis	CIVL	309	4	(4,0)
Hydrology and Water Resources	CIVL	313	3	(3,0)
Fluid Mechanics	CIVL	315	3	(3,0)
Elements of Electrical Engineering	ELEC	308	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Geotechnical Laboratory	CIVL	402	1	(0,2)
Geotechnical Engineering II	CIVL	410	3	(3,0)
Steel Design	CIVL	406	3	(3,0)
Environmental Engineering Laboratory	CIVL	419	1	(0,2)
**Civil Engineering Design Elective	CIVL		3	(2,2)
***Humanities/Social Science			3	(3,0)
+2nd Year Advanced ROTC				

****Elective to be an approved engineering or science course.

HOURS REQUIRED FOR GRADUATION: 132 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

COMPUTER SCIENCE MAJOR
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Survey of Computer Science	CSCI	103	1	(1,0)
A Modern Language			3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Discrete Structures	MATH	206	3	(3,0)
++Biology, Chemistry or Physics			4	(3,2)
Introduction to Computer Science II	CSCI	202	4	(3,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Computer Organization & Programming	CSCI	305	3	(3,0)
Programming Languages	CSCI	355	3	(3,0)
++Biology, Chemistry or Physics			4	(3,2)
Elective			3	(3,0)
Social Science Core Course			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Operating Systems and Computer	CSCI	405	3	(3,0)
Software Engineering	CSCI	420	3	(3,0)
Senior Seminar in Computer Science	CSCI	495	3	(3,0)
Digital Logic and Circuits	ELEC	311	3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Science must be CHEM 151 (161)/CHEM 152 (162) or BIOL 101 (111)/BIOL 102 (112) or PHYS 221 (271)/222 (272) or PHYS 212 (262).

+++Any computer science course numbered at 300 or 400 level.

COMPUTER SCIENCE MAJOR
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
English, American, or World Literature	ENGL		3	(3,0)
++Biology, Chemistry or Physics			4	(3,2)
A Modern Language			3	(3,0)
Data Structures	CSCI	223	3	(3,0)
Linear Algebra	MATH	240	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
Database Design and File Structures	CSCI	320	3	(3,0)
+++Approved Elective	CSCI		3	(3,0)
++Biology, Chemistry or Physics			4	(3,2)
Introduction to Probability and Statistics	STAT	361	3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Software Engineering Praticum	CSCI	421	3	(3,0)
OR				
Internship	CSCI	491	3	(3,0)
OR				
Senior Research Project	CSCI	499	3	(3,0)
Digital Systems Engineering	ELEC	330	3	(3,0)
+++Approved Elective	CSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

CRIMINAL JUSTICE MAJOR
First Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
Introduction to Criminal Justice	CRMJ	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
American National Government	PSCI	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
Police Systems and Practices	CRMJ	370	3	(3,0)
Cluster A Elective			3	(3,0)
Cluster C Elective	PSCI		3	(3,0)
1 Course, U.S. History Elective	HIST		3	(3,0)
1 Course, General Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Cluster A Elective			3	(3,0)
Cluster A Elective			3	(3,0)
Cluster B Elective			3	(3,0)
1 course, General Elective			3	(3,0)
1 course, General Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

CRIMINAL JUSTICE MAJOR

Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Criminology	CRMJ	202	3	(3,0)
English, American or World Literature	ENGL		3	(3,0)
1 course, U.S. History elective			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Corrections	CRMJ	380	3	(3,0)
Cluster A Elective			3	(3,0)
Cluster B Elective			3	(3,0)
Cluster C Elective	PSCI		3	(3,0)
1 Course, General Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Cluster A Elective			3	(3,0)
Cluster B Elective			3	(3,0)
Cluster C Elective	PSCI		3	(3,0)
1 Course, General Elective			3	(3,0)
1 Course, General Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

PRE-EDUCATION
First Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology I Laboratory	BIOL	111	1	(0,2)
History of World Civilization I	HIST	105	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
Major British Writers	ENGL	201	3	(3,0)
Chemistry or Physics			4	(3,2)
Social Science Core Course	PSCI	102	3	(3,0)
Educational Psychology	EDUC	202	3	(3,0)
Introduction to Sociology	SOCI	201	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PRE-EDUCATION
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
General Biology II	BIOL	102	3	(3,0)
General Biology II Laboratory	BIOL	112	1	(0,2)
History of World Civilization II	HIST	106	3	(3,0)
Education in Modern Society	EDUC	101	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
Masterpieces of World Literature I or II	ENGL		3	(3,0)
Chemistry or Physics			4	(3,2)
Principles of Macroeconomics	BADM	201	3	(3,0)
Art Appreciation	FNAR	206	3	(3,0)
Adolescent Development	EDUC	206	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

NOTE: Students in Pre-Education are expected to transfer into the Education Major after the sophomore year. Admission into the Education Major is contingent upon the following:

1) Maintaining a cumulative GPR of 2.500 or higher;
2) Successful completion of EDUC 101 and EDUC 201;
3) Earning passing scores on all three parts of the PRAXIS I.

Students who are not qualified to move into the Education Major will not be permitted to enroll in 300- or 400-level Education courses and will be counseled to consider another major.

EDUCATION MAJOR
(Social Studies)
First Semester

JUNIOR YEAR

General Psychology	PSYC	201	3	(3,0)*
Teaching Reading in the Secondary School	EDUC	306	3	(3,0)
Survey of American History	HIST	201	3	(3,0)
World Geography	GEOG	209	3	(3,0)
Music Appreciation	FNAR	205	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Methods and Materials of Secondary School Teaching	EDUC	401	3	(3,0)
Social and Cultural History of the Non-Western World	HIST	417	3	(3,0)
History Elective	HIST		3	(3,0)
**Approved Social Studies Elective			3	(3,0)
**Approved Social Studies Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

**Selected from anthropology, geography, political science, economics, psychology, or history.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

EDUCATION MAJOR
(Social Studies)
Second Semester

JUNIOR YEAR				
Teaching Students with Special Needs	EDUC	312	3	(3,0)
Survey of American History	HIST	202	3	(3,0)
Cultural Anthropology	ANTH	202	3	(3,0)
Urban Politics	PSCI	302	3	(3,0)
Approved Elective			3	(3,0)
+1st Year and 2nd Year Advanced ROTC				
SENIOR YEAR				
Internship in Teaching	EDUC	499	12	
Special Methods in Teaching	EDUC	402	3	(3,0)

HOURS REQUIRED FOR GRADUATION: 121 plus the credit hours from successful completion of RPED 25 0, RPED 251, and all required ROTC courses.

ELECTRICAL ENGINEERING MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western Civilization	HIST	103	3	(3,0)
Engineering Fundamentals I	ELEC	104	1	(1,1)
+1st Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

SOPHOMORE YEAR

Introduction to Discrete Structures	MATH	206	3	(3,0)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Physics with Calculus I	PHYS	221	3	(3,0)
Physics with Calculus I Laboratory	PHYS	271	1	(0,2)
Electric Circuit Analysis I	ELEC	201	3	(3,0)
Digital Logic and Circuit	ELEC	311	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Major British Writers	ENGL	201	3	(3,0)
Applied Mathematics II	MATH	335	3	(3,0)
Linear Systems Analysis	ELEC	309	3	(3,0)
Engineering Administration	CIVL	314	2	(2,0)
Electronics I	ELEC	306	3	(3,0)
Electronics Laboratory	ELEC	313	1	(0,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Design I	ELEC	421	3	(1,4)
**Non-Departmental Elective			3	(3,0)
Applied Probability and Statistics for Engineers	ELEC	412	3	(3,0)
***Approved Department Elective	ELEC	4XX	3	(3,0)
***Approved Department Elective	ELEC	4XX	3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit. Lecture, laboratory hours, in that order.

**Advanced humanitites or social science course.

***APPROVED DEPARTMENT ELECTIVES must be selected from among the following courses: ELEC 401, ELEC 403, ELEC 405, ELEC 407, ELEC 413, ELEC 414, ELEC 415, ELEC 416, ELEC 418, ELEC 419, ELEC 423, ELEC 424, ELEC 425, ELEC 426, and CSCI 420.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

ELECTRICAL ENGINEERING MAJOR
Second Semester

FRESHMAN YEAR

General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
Composition and Literature	ENGL	102	3	(3,0)
History of Western Civilization	HIST	104	3	(3,0)
Engineering Fundamentals II	ELEC	105	2	(2,0)
+1st Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

SOPHOMORE YEAR

English, American or World Literature	ENGL		3	(3,0)
Applied Mathematics I	MATH	234	4	(4,0)
Physics with Calculus II	PHYS	222	3	(3,0)
Physics with Calculus II Laboratory	PHYS	272	1	(0,2)
Electric Circuit Analysis II	ELEC	202	3	(3,0)
Electrical Laboratory	ELEC	204	1	(0,2)
Computer Applications for Electrical Engineering	ELEC	206	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

JUNIOR YEAR

Systems I	ELEC	312	3	(3,0)
Electromechanical Energy Conversion	ELEC	316	3	(3,0)
Digital Systems Engineering	ELEC	330	3	(3,0)
Electrical Machinery Laboratory	ELEC	302	1	(0,2)
++Technical Elective			3	(3,0)
Electromagnetic Fields	ELEC	318	3	(3,0)
Linear Systems Laboratory	ELEC	301	1	(0,2)
+1st Year Advanced ROTC				

SENIOR YEAR

Design II	ELEC	422	3	(1,4)
Social Science Core Course			3	(3,0)
***Approved Department Elective	ELEC	4XX	3	(3,0)
***Approved Department Elective	ELEC	4XX	3	(3,0)
***Approved Department Elective	ELEC	4XX	3	(3,0)
+2nd Year Advanced ROTC				

++Technical Electives: *Nuclear Engineering* (ELEC 307), *Optics* (PHYS 308), *Thermodynamics* (PHYS 410), *Statics and Mechanics of Materials For Non-Civil Engineers,* (CIVL 310); *Data Structures,* (CSCI 223); *Engineering Management,* (CIVL 411).

Credit hours required for graduation: 128 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

ENGLISH MAJOR
First Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
Survey of British Literature I	ENGL	203	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Mythology, or	ENGL	211	3	(3,0)
The Bible as Literature	ENGL	212		
Social Science Core			3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
Shakespeare I, or	ENGL	303	3	(3,0)
Shakespeare II	ENGL	304		
Approved Elective (ENGL 325-336)	ENGL		3	(3,0)
Approved Elective (ENGL 301-499)	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
American Literature Elective (ENGL 340-349)	ENGL		3	(3,0)
Approved Elective (ENGL 310-324)	ENGL		3	(3,0)
Approved Elective (ENGL 301-499)	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

ENGLISH MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Survey of British Literature II	ENGL	204	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Introduction to Philosophy	PHIL	201	3	(3,0)
Elective			3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Chaucer, or	ENGL	301	3	(3,0)
Milton	ENGL	305		
Approved Elective (ENGL 360-499)	ENGL		3	(3,0)
Approved Elective (ENGL 301-499)	ENGL		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

American Literature Elective (ENGL 340-349)	ENGL		3	(3,0)
Approved Elective (ENGL 360-499)	ENGL		3	(3,0)
Approved Elective (ENGL 301-499)	ENGL		3	(3,0)
Senior Seminar I, or	ENGL	402		
Senior Seminar II	ENGL	403	3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

FRENCH MAJOR

First Semester

FRESHMAN YEAR

Elementary French Communication I	FREN	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Intermediate French Communication	FREN	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Advanced French Conversation	FREN	301	3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

FRENCH MAJOR
Second Semester

FRESHMAN YEAR

Elementary French Communication II	FREN	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

French Reading, Conversation and Composition	FREN	202	3	(3,0)
English, American, or World Literature	ENGL		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Advanced French Composition	FREN	302	3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Advanced Modern Language	FREN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

GERMAN MAJOR

First Semester

FRESHMAN YEAR

Elementary German I	GERM	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Intermediate German I	GERM	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Advanced German Conversation	GERM	301	3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

GERMAN MAJOR
Second Semester

FRESHMAN YEAR

Elementary German II	GERM	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Intermediate German II	GERM	202	3	(3,0)
English, American, or World Literature	ENGL		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Advanced German Composition	GERM	302	3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Advanced Modern Language	GERM		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

HEALTH, EXERCISE AND SPORT SCIENCE
Professional Track
First Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
Introduction to Health, Exercise, Sport Science and Physical Education	PHED	101	3	(3,0)
General Biology I	BIOL	101	3	(3,0)
General Biology I Laboratory	BIOL	111	1	(0,2)
First Year Seminar	ORTN	101	1	(2,0)
+1st Year Basic ROTC				
SOPHOMORE YEAR				
Major British Writers	ENGL	201	3	(3,0)
Human Anatomy and Physiology I	BIOL	317	3	(3,0)
Human Anatomy and Physiology I Laboratory	BIOL	327	1	(0,2)
Accommodating Persons with Disabilities within Sport and Physical Activity	PHED	203	3	(3,0)
Contemporary Health Foundations	RPED	250	2	(2,0)
First Aid and CPR	RPED	113	0	(0,1)
**Approved Elective			3	(3,0)
+2nd Year Basic ROTC				
JUNIOR YEAR				
Physical Science (Chemistry or Physics)			4	(3,2)
A Modern Language			3	(3,0)
Developmental Psychology	PSYC	202	3	(3,0)
Biomechanical Kinesiology	PHED	314	3	(3,0)
Physiology of Exercise	PHED	319	4	(3,2)
+1st Year Advanced ROTC				
SENIOR YEAR				
A Modern Language			3	(3,0)
First Aid and Emergency Care	HLED	400	3	(3,0)
**Approved Elective			3	(3,0)
**Approved Elective			3	(3,0)
**Approved Elective			3	(3,0)
**Approved Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Approved Electives are determined by the professional track selected, Health/Wellness or Sports Management/Administration. A complete list of Approved Electives is available in the section of this catalog on Department of Health, Exercise and Sport Science.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

HEALTH, EXERCISE AND SPORT SCIENCE
Professional Track
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
Learning Theory and Methodology	PHED	102	3	(2,2)
Social Science Core Course			3	(3,0)
+1st Year Basic ROTC				

SOPHOMORE YEAR

English, American, or World Literature	ENGL		3	(3,0)
Human Anatomy and Physiology II	BIOL	318	3	(3,0)
Human Anatomy and Physiology II Laboratory	BIOL	328	1	(0,2)
Care and Prevention of Athletic Injuries	PHED	202	3	(3,0)
Elective			3	(3,0)
Foundations of Fitness and Exercise	RPED	251	2	(2,0)
Required Physical Education	RPED		0	(0,1)
+2nd Year Basic ROTC				

JUNIOR YEAR

Measurement and Evaluation	PHED	305	3	(3,0)
Physical Science (Chemistry or Physics)			4	(3,2)
Informative Speaking	ENGL	205	3	(3,0)
A Modern Language			3	(3,0)
Drug and Substance Abuse	HLED	302	3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Nutrition	HLED	401	3	(3,0)
A Modern Language			3	(3,0)
Administration of Health, Exercise, Sport Science and Physical Education	PHED	404	3	(3,0)
**Approved Elective			3	(3,0)
Directed Field Experience	PHED	406	3	
Senior Seminar in Health, Exercise, Sport Science and Physical Education	PHED	421	1	(1,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 128 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

HISTORY MAJOR
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
United States History to 1865	HIST	201	3	(3,0)
A Modern Language			3	(3,0)
**1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Introduction to History	HIST	203	3	(3,0)
History Elective	HIST		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Group I History Elective	HIST		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Group III History Elective	HIST		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
***1st Year Advanced ROTC				

SENOR YEAR

Group I History Elective	HIST		3	(3,0)
Group II History Elective	HIST		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+Approved Elective	PSCI		3	(3,0)
**2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.
**ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.
+Must be numbered at the 300 or 400 level.
Group I (EUROPEAN): 321, 322, 324, 325, 326, 327, 328, 421, 422, 423, 424, 435, 475, 481, and 491.
Group II (AMERICAN): 204, 300, 301, 303, 305, 307, 308, 310, 311, 402, 403, 406, 407, 409, 471, 472, 473, 474, and 492.
Group III (LATIN AMERICA AND NON-WESTERN): 417, 425, 450, 451, 452, 462, 463, 464, 466, and 493.
Group IV (DIPLOMATIC/MILITARY): 304, 410, 479, 483, 487, 488, 489, and 494.

HISTORY MAJOR
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
United States History since 1865	HIST	202	3	(3,0)
A Modern Language			3	(3,0)
**1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
English, American or World Literature	ENGL		3	(3,0)
American National Government	PSCI	102	3	(3,0)
History Elective	HIST		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
**2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
Biology, Chemistry, or Physics			4	(3,2)
Group IV History Elective	HIST		3	(3,0)
+Approved Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
**1st Year Advanced ROTC				
SENIOR YEAR				
Group II History Elective	HIST		3	(3,0)
History Elective	HIST		3	(3,0)
+Approved Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
**2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

B.S. MATHEMATICS MAJOR
First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
A Modern Language			3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
***Biology, Chemistry, or Physics			4	(3,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Introduction to Discrete Structures	MATH	206	3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

***Biology, Chemistry or Physics			4	(3,2)
Modern Algebra I	MATH	303	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Introduction to Analysis I	MATH	403	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

**Any mathematics course numbered at the 300 or 400 level.

***Science must be CHEM 151 (161)/CHEM 152 (162) or BIOL 101 (111)/BIOL 102 (112) or PHYS 221 (271), PHYS 222 (272).

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.S. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
English, American or World Literature	ENGL		3	(3,0)
Applied Mathematics I	MATH	234	4	(4,0)
Linear Algebra	MATH	240	3	(3,0)
***Biology, Chemistry or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
***Biology, Chemistry or Physics			4	(3,2)
**Introduction to Probability and Statistics	STAT	361	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Senior Seminar in Mathematics	MATH	495	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

B.A. MATHEMATICS MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Biology, Chemistry, or Physics			4	(3,2)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Educaton	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Elective			3	(3,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Introduction to Discrete Structures	MATH	206	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Social Science Core Course			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Modern Algebra I	MATH	303	3	(3,0)
Mathematical Models and Applications	MATH	470	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

**Any mathematics course numbered at the 300 or 400 level.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

B.A. MATHEMATICS MAJOR
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
English, American or World Literature	ENGL		3	(3,0)
Applied Mathematics I	MATH	234	4	(4,0)
A Modern Language			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
Linear Algebra	MATH	240	3	(3,0)
Introduction to Probability and Statistics	STAT	361	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
Introduction to Computer Science I	CSCI	201	4	(3,2)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Senior Seminar in Mathematics	MATH	495	3	(3,0)
**Mathematics Elective	MATH		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 124 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

PRE-PHYSICAL EDUCATION
Teaching Track
First Semester

FRESHMAN YEAR

General Biology I	BIOL	101	3	(3,0)*
General Biology I Laboratory	BIOL	111	1	(0,2)
Composition and Literature	ENGL	101	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
Introduction to Health, Exercise, Sport Science and Physical Education	PHED	101	3	(3,0)
+1st Year Basic ROTC				
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Human Anatomy and Physiology I	BIOL	317	3	(3,0)
Human Anatomy and Physiology I Laboratory	BIOL	327	1	(0,2)
Major British Writers	ENGL	201	3	(3,0)
Motor Development	PHED	200	3	(3,0)
Accommodating Persons with Disabilities within Sport and Physical Activity	PHED	203	3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PRE-PHYSICAL EDUCATION
Teaching Track
Second Semester

FRESHMAN YEAR				
Composition and Literature	ENGL	102	3	(3,0)
History of Western or World Civilivation	HIST		3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
Social Science Core Course			3	(3,0)
Contemporary Health Foundations	RPED	250	2	(2,0)
First Aid and CPR (ARC)	RPED	113	0	
+1st Year Basic ROTC				
SOPHOMORE YEAR				
Human Anatomy and Physiology II	BIOL	318	3	(3,0)
Human Anatomy and Physiology II Laboratory	BIOL	328	1	(0,2)
English, American, or World Literature	ENGL		3	(3,0)
Motor Learning	PHED	235	3	(3,0)
Foundations of Fitness & Exercise	RPED	251	2	(2,0)
Elective			3	(3,0)
Required Physical Education	RPED		0	(0,1)
+2nd Year Basic ROTC				

NOTE: The Pre-Physical Education (Teaching Track) student is expected to be admitted to the Physical Education (Teaching Track) Major at the end of the sophomore year. To be admitted to the Physical Education (Teaching Track) Major, the student enrolled in Pre-Physical Education (Teaching Track) must have the support of his or her advisor relative to suitability and interest in teacher education and must also have:

1. Successfully completed all three parts of the PRAXIS I;
2. Maintained a cumulative Grade Point Ratio of 2.500 or higher on at least 45 credit hours of coursework taken at The Citadel;
3. Successfully completed PHED 101, PHED 200, PHED 203, and PHED 235.

Students who have not met all these requirements by the end of their sophomore year will not be permitted to enroll in 300- or 400-level courses in the major and will be encouraged to consider another major.

PHYSICAL EDUCATION
Teaching Track
First Semester

JUNIOR YEAR				
Educational Psychology	EDUC	202	3	(3,0)*
Biomechanical Kinesiology	PHED	314	3	(3,0)
Physiology of Exercise	PHED	319	4	(3,2)
Methods of Teaching Rhythmic Activities	PHED	321	3	(3,1)
Physical Science (Chemistry or Physics)			4	(3,2)
+1st Year Advanced ROTC				
SENIOR YEAR				
Child Development	EDUC	307	3	(3,0)
History of the Non-Western World	HIST	417	3	(3,0)
Methods of Teaching School Health Education	HLED	407	3	(3,0)
Elementary School Physical Education	PHED	433	3	(3,0)
Methods of Teaching Team Sports	PHED	460	3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credits, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PHYSICAL EDUCATION
Teaching Track
Second Semester

JUNIOR YEAR

Adolescent Development	EDUC	206	3	(3,0)
Technology in Health, Exercise, Sport Science and Physical Education	PHED	300	3	(3,0)
Measurement and Evaluation	PHED	305	3	(3,0)
Health and Physical Education School Curriculum	PHED	335	3	(3,0)
Methods of Teaching Individual and Dual Sports	PHED	350	3	(3,0)
Physical Science (Chemistry or Physics)			4	
+1st Year Advanced ROTC				

SENIOR YEAR

Administration of Health, Exercise, Sport Science and Physical Education	PHED	404	3	(3,0)
Senior Seminar in Health, Exercise, Sport Science and Physical Education	PHED	421	1	(1,0)
Internship in Teaching	PHED	499	12	
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

PHYSICS MAJOR
First Semester

FRESHMAN YEAR

++Approved Elective			3	(3,0)
++Approved Elective			3	(3,0)
Analytic Geometry and Calculus I	MATH	131	4	(4,0)
Composition and Literature I	ENGL	101	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Physics with Calculus II	PHYS	222	3	(3,0)
Applications of Physics with Calculus II	PHYS	232	1	(1,0)
Laboratory for Physics with Calculus II	PHYS	272	1	(0,2)
Analytic Geometry and Calculus III	MATH	231	4	(4,0)
Major British Writers I	ENGL	201	3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Electronic Instrumentation	PHYS	307	3	(3,0)
Electronic Instrumentation Laboratory	PHYS	357	1	(0,2)
Analytical Mechanics I	PHYS	315	3	(3,0)
Applied Mathematics II	MATH	335	3	(3,0)
General Chemistry I	CHEM	151	3	(3,0)
General Chemistry I Laboratory	CHEM	161	1	(0,2)
History of Western or World Civilization I	HIST		3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Electricity and Magnetism I	PHYS	403	3	(3,0)
Quantum Mechanics I	PHYS	405	3	(3,0)
Advanced Physics Laboratory	PHYS	451	2	(0,4)
Research Planning	PHYS	419	2	(1,2)
+++Approved Elective			3	(3,0)
Social Science Core Course			3	(3,0)
+2nd Year Advanced ROTC				

+ROTC hours may vary each semester by military department; however the total hours which may be applied toward graduation requirements may not exceed 16 semester hours

++(PHYS 101, BIOL 101/111, BIOL 102/112, CSCI 110, ASTR 201, ASTR 202, or alternate courses upon the approval of department head)

+++(CHEM 300, PHYS 301, CHEM 305, BIOL 310, MATH 343, PHYS 409, ASTR 412, PHYS 415, PHYS 416, MATH 422, or alternate course upon the approval of department head) Approved Elective can be taken in the fall or spring term.

PHYSICS MAJOR
Second Semester

FRESHMAN YEAR

Physics with Calculus I	PHYS	221	4	(4,0)
Applications of Physics with Calculus I	PHYS	231	1	(1,0)
Laboratory for Physics with Calculus I	PHYS	271	1	(0,2)
Analytic Geometry and Calculus II	MATH	132	4	(4,0)
Composition and Literature II	ENGL	102	3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Modern Physics	PHYS	323	3	(3,0)
Applications of Modern Physics	PHYS	333	1	(1,0)
Modern Physics Laboratory	PHYS	373	1	(0,2)
Applied Mathematics I	MATH	234	4	(4,0)
English, American or World Literature	ENGL		3	(3,0)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Optics	PHYS	308	3	(3,0)
Optics Laboratory	PHYS	358	1	(0,2)
Analytical Mechanics II	PHYS	316	3	(3,0)
Mathematical Physics	PHYS	320	3	(3,0)
General Chemistry II	CHEM	152	3	(3,0)
General Chemistry II Laboratory	CHEM	162	1	(0,2)
History of Western or World Civilization II	HIST		3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Electricity and Magnetism II	PHYS	404	3	(3,0)
Quantum Mechanics II	PHYS	406	3	(3,0)
Thermodynamics	PHYS	410	3	(3,0)
Senior Research Project	PHYS	420	3	(1,4)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and lab hours, in that order.

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from the successful completion of RPED 250, RPED 251, and all required ROTC courses.

POLITICAL SCIENCE MAJOR
Subfield A—American Government and Politics
First Semester

FRESHMAN YEAR

Introduction to Political Science	PSCI	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

International Politics	PSCI	231	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Social Science Core Course	SOCI	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Political Parties	PSCI	301	3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Principles of Macroeconomics	BADM	201	3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Constitutional Law: Civil Rights	PSCI	462	3	(3,0)
Political Issues and Public Policy	PSCI	401	3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

POLITICAL SCIENCE MAJOR
Subfield A—American Government and Politics
Second Semester

FRESHMAN YEAR

American National Government	PSCI	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Comparative Politics	PSCI	232	3	(3,0)
English, American or World Literature	ENGL		3	(3,0)
Elective			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Political Theory	PSCI	392	3	(3,0)
Urban Politics or	PSCI	302 or	3	(3,0)
Legislative Process		306		
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Political Science Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

POLITICAL SCIENCE MAJOR
Subfield B—International Politics and Military Affairs
First Semester

FRESHMAN YEAR				
Introduction to Political Science	PSCI	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
International Politics	PSCI	231	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Social Science Core Course	SOCI	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
International Organizations or Non-Western Studies	PSCI	333 or 343	3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Principles of Macroeconomics	BADM	201	3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Constitutional Law: Civil Rights	PSCI	462	3	(3,0)
American Foreign Relations	PSCI	431	3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

POLITICAL SCIENCE MAJOR
Subfield B—International Politics and Military Affairs
Second Semester

FRESHMAN YEAR				
American National Government	PSCI	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
Comparative Politics	PSCI	232	3	(3,0)
English, American or World Literature	ENGL		3	(3,0)
Elective			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
Political Theory	PSCI	392	3	(3,0)
National Security Policy	PSCI	332	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Political Science Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

POLITICAL SCIENCE MAJOR
Subfield C—Pre-Law and Legal Studies
First Semester

FRESHMAN YEAR				
Introduction to Political Science	PSCI	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
International Politics	PSCI	231	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Social Science Core Course	SOCI	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
Criminal Justice	CRMJ	201	3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Principles of Macroeconomics	BADM	201	3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Constitutional Law: Civil Rights	PSCI	462	3	(3,0)
++Subfield Elective			3	(3,0)
American Politics Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

++Majors must concentrate in one of three subfields: American Government and Politics, International Politics and Military Affairs, or Law and Legal Studies.

POLITICAL SCIENCE MAJOR
Subfield C—Pre-Law and Legal Studies
Second Semester

FRESHMAN YEAR

American National Government	PSCI	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

Comparative Politics	PSCI	232	3	(3,0)
English, American or World Literature	ENGL		3	(3,0)
Elective			3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Political Theory	PSCI	392	3	(3,0)
Law and Legal Process	PSCI	361	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History Elective	HIST		3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Political Science Elective	PSCI		3	(3,0)
Constitutional Law: Powers of Government	PSCI	461	3	(3,0)
++Subfield Elective	PSCI		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

PSYCHOLOGY MAJOR

First Semester

FRESHMAN YEAR

Composition and Literature	ENGL	101	3	(3,0)*
Elementary Mathematical Modeling	MATH	104	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
General Psychology	PSYC	201	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)

SOPHOMORE YEAR

Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Research Design in Psychology	PSYC	203	3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)

JUNIOR YEAR

Physiological Psychology	PSYC	302	4	(3,2)
Theories of Personality	PSYC	306	3	(3,0)
**Humanities/Social Sciences Elective			3	(3,0)
Approved Elective	FNAR		3	(3,0)
Non-Departmental Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

Psychology of Learning	PSYC	403	3	(3,0)
Industrial/Organizational Psychology or Approved Elective	PSYC	404		
Psychological Testing	PSYC	407	3	(3,0)
Approved Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

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*Represents semester credit, lecture, and laboratory hours, in that order.

**This requirement will be fulfilled by taking any course in the School of Humanities and Social Sciences, at the 200-level or above, outside of the student's major or minor.

+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

PSYCHOLOGY MAJOR
Second Semester

FRESHMAN YEAR

Composition and Literature	ENGL	102	3	(3,0)
Finite Mathematics	MATH	105	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
A Modern Language			3	(3,0)
Developmental Psychology	PSYC	202	3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)

SOPHOMORE YEAR

English, American or World Literature	ENGL		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
History of Western or World Civilization	HIST		3	(3,0)
A Modern Language			3	(3,0)
Experimental Psychology	PSYC	301	4	(3,2)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)

JUNIOR YEAR

Abnormal Psychology	PSYC	304	3	(3,0)
Social Science Core Course			3	(3,0)
Social Psychology	PSYC	305	3	(3,0)
Non-Departmental Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+1st Year Advanced ROTC				

SENIOR YEAR

History and Systems of Psychology	PSYC	405	3	(3,0)
Advanced Psychological Study	PSYC	410	3	(3,0)
Cognitive Psychology or Approved Elective	PSYC	402	3	(3,0)
Approved Elective			3	(3,0)
Non-Departmental Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 127 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

SPANISH MAJOR
First Semester

FRESHMAN YEAR				
Elementary Spanish Communication I	SPAN	101	3	(3,0)*
Composition and Literature	ENGL	101	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elementary Mathematical Modeling	MATH	104	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
First Year Seminar	ORTN	101	1	(2,0)
SOPHOMORE YEAR				
Intermediate Spanish Communication	SPAN	201	3	(3,0)
Major British Writers	ENGL	201	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Social Science Core Course			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	250	2	(2,0)
JUNIOR YEAR				
Advanced Spanish Composition	SPAN	302	3	(3,0)
Advanced Modern Language	SPAN	305	3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

*Represents semester credit, lecture, and laboratory hours, in that order.
+ROTC hours (credit, lecture, and/or lab) may vary each semester by military department; however, the total hours which may be applied toward graduation requirements may not exceed 16 semester hours.

SPANISH MAJOR
Second Semester

FRESHMAN YEAR				
Elementary Spanish Communication II	SPAN	102	3	(3,0)
Composition and Literature	ENGL	102	3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Finite Mathematics	MATH	105	3	(3,0)
History of Western or World Civilization	HIST		3	(3,0)
+1st Year Basic ROTC				
Required Physical Education	RPED		0	(0,1)
SOPHOMORE YEAR				
Spanish Conversation, Reading and Composition	SPAN	202	3	(3,0)
English, American or World Literature	ENGL		3	(3,0)
Biology, Chemistry, or Physics			4	(3,2)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Basic ROTC				
Required Physical Education	RPED	251	2	(2,0)
JUNIOR YEAR				
Advanced Spanish Conversation	SPAN	301	3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+1st Year Advanced ROTC				
SENIOR YEAR				
Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Advanced Modern Language	SPAN		3	(3,0)
Elective			3	(3,0)
Elective			3	(3,0)
+2nd Year Advanced ROTC				

HOURS REQUIRED FOR GRADUATION: 125 plus the credit hours from successful completion of RPED 250, RPED 251, and all required ROTC courses.

SCHOOL
OF
BUSINESS ADMINISTRATION

Col. W. Earl Walker, Dean

Col. Mark Bebensee, Associate Dean

School of Business Administration

Dean, Jolley Chair: Walker
Associate Dean: Bebensee
Hipp Chair: McMillian
Chapman Chair: Katz
Professors: Alford, Carter, Foster, Kindel, Moody, Moore, Pokryfka, Silver, Simmons, Sparks, Walker
Associate Professors: Bebensee, Bolt, Jones, Sharbrough, Strauch, Woolsey
Assistant Professors: Arnold, Kuhlmeier

The mission of the School of Business Administration is to educate and develop leaders of principle to serve a global community.

Our teaching, professional, and personal activities are based on our commitment to these values: integrity, fairness, and concern for others in all of our relationships; continuous pursuit and dissemination of knowledge to promote enlightened changes in society, and continuous improvement in all we do.

Entering freshman cadets may declare their major to be Pre-Business Administration. In addition, students from within The Citadel who are pursuing other majors may change to Pre-Business Administration. In order to be accepted as Business Administration majors, these Pre-Business Administration majors must earn a Grade Point Ratio of at least 2.000 in the following five courses that provide the foundation for the major:

BADM 202	Principles of Microeconomics
BADM 205	Business Statistics
BADM 211	Intro. to Financial Accounting and Reporting
BADM 212	Accounting for Decision-Making
BADM 216	Communications in Business

The Citadel's undergraduate program, our principal focus, blends four semesters of science, four semesters of English, four semesters of foreign language courses, other traditional liberal arts courses, and upper-level business courses with a demanding on-campus military leadership laboratory — the South Carolina Corps of Cadets. This laboratory teaches self-awareness, stress management, creative problem-solving, communication, motivation, conflict management, and productive use of power and authority. In addition to living and working in this laboratory, cadets also take eight semesters of ROTC courses which emphasize communication skills, military professionalism, ethics, analysis of the defense structure, practice of leadership and management principles, and problem-solving skills.

For students interested in accounting careers, the School offers an accounting concentration. Students who choose to pursue this option use all six of their departmental elective slots to satisfy concentration requirements as specified in the "Courses of Study" section of this catalog.

The School of Business Administration also participates in the interdisciplinary minor in Leadership Studies. For a full description of this minor, please refer to the entry in this catalog in the Department of English section.

Persons interested in the Master of Business Administration program, which is offered only through evening classes, should consult the Graduate Programs catalog for further information.

Business Course Descriptions

BADM 201 *Principles of Macroeconomics* Three Credit Hours

Required of all business administration sophomores.

Satisfies the Social Science Core Requirement for non-business majors.

A study of the origins of capitalism and the development of economic institutions; an introduction to economic principles, including an analysis of the determination of national income and its fluctuations, and an introduction to money, banking, and government finance. (May be taken after BADM 202.)

BADM 202 *Principles of Microeconomics* Three Credit Hours

Required of all business administration sophomores.

Satisfies the Social Science Core Requirement for non-business majors.

A study of value and price, including factors affecting short- and long-run adjustments of the individual firm with respect to prices, costs, and levels of production; value and price determination; market adjustments in competition and monopoly; distribution of income; international economics; and current economic problems. (May be taken before BADM 201.)

BADM 205 *Business Statistics I* Three Credit Hours

Prerequisite: MATH 104

Required of all business administration sophomores.

This course introduces the student to the concepts and techniques necessary to organize and analyze data. Topics covered in this course include data collection and presentation, probability distributions, sampling theory, hypothesis testing, analysis of variance, and simple regression analysis. Students will be introduced to computer-based tools used in the analysis of statistical data.

BADM 211 *Introduction to Financial Accounting and Reporting* Three Credit Hours

Required of all business administration sophomores.

An introduction to the basic theory and practice of financial accounting and reporting. Focus on the fundamental concepts, terminology, and techniques for the preparation and interpretation of the corporate financial statements: the balance sheet, the income statement, and the statement of retained earnings.

BADM 212 *Accounting for Decision-Making* Three Credit Hours

Prerequisite: BADM 211

Required of all business administration sophomores.

Focus on the interpretation and use of accounting information for external and internal decision-making. Topics include preparation and interpretation of corporate financial statements, financial statement analysis, and the development and use of reports for internal purposes such as cost behavior analysis and budgeting. Integrative project involves study and interpretation of a corporate annual report and other relevant information.

BADM 216 *Communications in Business* Three Credit Hours

Required of business administration sophomores.

A study of written and oral interpersonal communication in goal-seeking organizations. Emphasis is given to communication theory, including barriers and types of communication flows in organizations, the psychology of communicating good neutral, negative, and persuasive messages, and the writing of formal reports. (formerly numbered BADM 316)

BADM 300 *Intermediate Financial Accounting I* Three Credit Hours

Prerequisite: BADM 212

Required of business administration majors with a concentration in accounting.

A rigorous study of the theory and practice of financial accounting. Focus on the concepts underlying financial accounting and the preparation of corporate financial statements. Emphasis on asset accounting and preparation of the balance sheet and the income statement.

BADM 301 *Intermediate Financial Accounting II* Three Credit Hours

Prerequisite: BADM 300

Required of business administration majors with a concentration in accounting.

A continuation of BADM 300. Primary emphasis on liability and equity accounting and the preparation of financial statements, including the statement of cash flows.

BADM 302 *Managerial Accounting* Three Credit Hours

Prerequisite: BADM 212

Required of business administration majors with a concentration in accounting.

A rigorous study of the preparation and interpretation of accounting information for planning, control, and decision-making within an organization.

BADM 305 *Legal & Ethical Environment of Business* Three Credit Hours

Required of all business administration juniors.

An introduction to the legal system, with special emphasis on its relation to business. Students will contend with federal and state regulations as well as the common law to arrive at an understanding of the legality, ethics, and social responsibility of business decisions. Topics include an introduction to the judicial system, torts and product liability, administrative law and consumer protection, agency and partnership, contracts, the Constitution, criminal law, ethics, and fiduciary trust.

BADM 308 *General Insurance* Three Credit Hours

This course covers predictable business risks and the methods of minimizing these risks through insurance. Includes intelligent planning of a program of coverages of life, fire, health and casualty insurance.

BADM 309 *Marketing Principles* Three Credit Hours

Prerequisite: BADM 202

Required of all business administration juniors.

A study of macro- and micro-marketing issues including interrelationship of marketing activities and functioning of the national economy, and influence of consumer, competitive, and governmental pressure on the firm's marketing behavior. International and domestic marketing issues are examined.

BADM 312 *Income Taxation* Three Credit Hours

Prerequisite: BADM 212

Required of business administration majors with a concentration in accounting.

Study of the basic principles of federal income tax law. Focus on individual income taxation; overview of taxation of corporations, partnerships, and S-corporations.

BADM 315 *Business Statistics II* Three Credit Hours

Prerequisite: BADM 205

A continuation of BADM 205, including an introduction to t, Poisson, and Chi-square distributions; tests of significance; regression and correlation analysis; index numbers; and simple and multiple correlation, as well as a more sophisticated exploration of sampling and probability theory. Students will be introduced to computer-based tools for statistical analysis of data.

BADM 317 *Computer Applications in Business* Three Credit Hours
Prerequisite: CSCI 110
Required of business administration juniors.
The application of computer software to assist in analyzing common business decisions, with an emphasis on advanced techniques in spreadsheet and database development and design. Includes a major business project utilizing presentation software and the Internet.

BADM 318 *Commercial Law* Three Credit Hours
Prerequisite: BADM 305
Required of business administration majors with a concentration in accounting.
A detailed examination of commercial law topics including sales, commercial paper, secured transactions, bulk transfers, and bankruptcy.

BADM 320 *International Business* Three Credit Hours
This course focuses on decisions in international business operations for small and large firms. Of particular interest are international business climate/culture, foreign exchange rates, international trade, overseas direct investment, and operations management. Students will incorporate case studies dealing with aspects of international business.

BADM 321 *Business Finance* Three Credit Hours
Prerequisite: BADM 212
Required of all business administration juniors.
An introductory course combining both a description of the structure of business financing and a study of financial principles and practices, with special emphasis on their relation to managerial planning and control.

BADM 322 *Business Finance Cases and Applications* Three Credit Hours
Prerequisite: BADM 321
This course considers problems arising in the financial management of operations of nonfinancial firms. Emphasis is on the role of the finance executive in a business. Case analysis is employed to integrate theory with decision making.

BADM 325 *Principles of Management* Three Credit Hours
Required of all business administration juniors.
A survey of the fundamental concepts of organization and management with emphasis on the role of a manager as a decision-maker in a rapidly changing national and international environment with short- and long-range social, legal, and ethical ramifications. Special emphasis is placed on the leadership functions of planning, organizing, coordinating, motivating, and controlling through effective feedback.

BADM 326 *Principles of Real Estate* Three Credit Hours

This course provides a personal and professional perspective of the legal, financial, and ethical rights and obligations of all parties in a real estate transaction. Topics include organizing, functioning, financing, marketing, brokering, appraising, and managing of real estate transactions.

BADM 328 *Organization Theory and Behavior* Three Credit Hours

Required of business administration juniors.

A study of the organization, focusing on interactions between organizational designs and people within an ethical framework. The dynamics and links between individuals, groups, and the national and international environment are analyzed to highlight the determinants of organizational effectiveness. A major focus is on the development of positive interpersonal relations.

BADM 371 *Leadership in Organizations* Three Credit Hours

Prerequisites: Junior standing: Completion of PSYC 371 or BADM 328

Using a case approach as well as a significant experiential component, this course involves the application of leadership theory and practice covered in this class and in other classes in the interdisciplinary minor in Leadership Studies. The course draws from cases in business and other organizations to focus the student's learning in both individual and team projects. Issues of motivation, persuasion, ethics, power, diversity, teams, etc. will all be explored. Guest speakers/leaders will also be an important component of the course.

BADM 402 *Advanced Financial Accounting* Three Credit Hours

Prerequisite: BADM 300; prerequisite or corequisite: BADM 301

Required of business administration majors with a concentration in accounting.

Selected topics pertaining to financial accounting and reporting; special types of entities such as consolidated corporations, governments, and not-for-profit organizations; specialized topics; and current issues.

BADM 404 *Investments* Three Credit Hours

Prerequisite: BADM 321

A survey course that introduces different types of securities, markets, transaction costs, security regulations, and taxes. The basic techniques for analyzing the potential returns and risks of individual securities and for combining them efficiently into portfolios are also studied.

BADM 405 *Marketing Management* Three Credit Hours

Prerequisite: BADM 309

A study of marketing planning and decision-making from the point of view of the marketing manager in a changing economic, social, and legal environment. Basic concepts and methods of analysis used in formulating product, distribution, promotion, and pricing strategy are studied.

BADM 407 *Money and Banking* Three Credit Hours
Prerequisite: BADM 201

The nature and functions of money, the various monetary standards, the development of our monetary system, the factors affecting the value of money, methods and objectives of money and credit control, international exchange, and analysis of recent developments in money and credit.

BADM 409 *Human Resource Management* Three Credit Hours

A contemporary course in the management of personnel as a resource concentrating on the historical, legal, social, economic, and ethical framework of labor relations with a focus on forecasting, planning, staffing, compensating, developing a career, labor relations, performance management, and control and evaluation of human resources.

BADM 410 *Production & Operations Management* Three Credit Hours
Prerequisites: BADM 202, BADM 205, BADM 212, and BADM 325
Required of all business administration seniors.

Analysis of the production function as the planning, organizing, directing, and controlling of the required activities and resources necessary to produce products and services. Managerial problems in the areas of plant design and location, production standards, operations planning and control, product development, materials handling, and inventory control are discussed.

BADM 412 *International Economics* Three Credit Hours
Prerequisite: BADM 202

An analysis of the theoretical principles underlying international specialization and exchange, the making of international payments, the relation of international payments to national income, and the application of these principles to recent historical developments and to current national policies. An introduction is provided to the network, composition, and sources of world trade.

BADM 413 *International Marketing* Three Credit Hours
Prerequisite: BADM 309

Introduction to global problems, issues, and decision areas facing the marketing manager for small and large firms. Case studies are utilized, and a research project is required.

BADM 414 *Consumer Behavior* Three Credit Hours
Prerequisite: BADM 309

The study of behavioral science theories and related marketing models useful to managers in understanding consumers in the domestic and international marketplace. A research project is required.

BADM 415 *Professional Selling* Three Credit Hours

This course helps students understand and develop the basic persuasive skills which are important to people in all walks of life. Assignments are designed to help students improve their skills in communicating effectively, establishing relationships, solving problems, and leading and persuading others.

BADM 416 *Auditing* Three Credit Hours

Prerequisite: BADM 300; prerequisite or corequisite: BADM 427

Required of business administration majors with a concentration in accounting.

Basic concepts of auditing including risk analysis, evaluation of controls, evidence gathering, and reporting as applicable in financial statement, compliance, and operational audits. Consideration of applicable professional standards throughout.

BADM 417 *Systems Analysis & Design for Business* Three Credit Hours

Prerequisite: CSCI 110 and BADM 317 or permission of instructor

This course addresses the theory and practice of effective database systems design for businesses. Topics include client/server models and object-oriented databases, as well as the data warehouse's role in supporting business decision-making.

BADM 420 *Management of Change* Three Credit Hours

Prerequisite: Senior standing in business administration

This course uses knowledge and skills from the social sciences to develop strategies for achieving effective change within organizations. Implementation of these strategies to achieve more effective organizations is the core of this course. Topics include team building, process consultation, confrontation and the management of conflict, and technostructural change.

BADM 422 *Strategic Management* Three Credit Hours

Prerequisites: BADM 201, BADM 202, BADM 211, BADM 212, BADM 309, BADM 321, BADM 325 or BADM 328

Required of all business administration seniors.

A capstone course designed to give the student practice in integrating the numerous theory courses in all phases of business management. The student develops problem-solving and decision-making skills by assuming the role of top management in the study of actual business cases.

BADM 425 *Small Business Management/ Entrepreneurship* Three Credit Hours

Prerequisite: Senior standing in business administration

This course covers the environment of small business, factors of success or failure, small business management tools, and sources of financing. Student teams will prepare business plans for the start-up of a business. In some instances, the teams will work with local entrepreneurs in developing business plans. The course is supported by a multi-media business planning system.

BADM 427 *Accounting Information Systems* Three Credit Hours

Prerequisite: CSCI 110; prerequisites or corequisites: BADM 300 and BADM 302.

Required of business administration majors with a concentration in accounting.

After reviewing the limitations of a manual accounting system, students will use relational database software to model business processes and develop an event-driven information technology application. Topics include information process rules, relationships, risks, and controls.

BADM 430-435 *Seminar in Business Administration* Three Credit Hours

Prerequisite: approval of course instructor and department head.

These courses are designed to provide students of exceptional ability and background with the opportunity to explore a variety of advanced, business-oriented, analytical techniques. Specified topics covered within these courses will be offered at the discretion of the instructor and under the supervision of the department head.

BADM 450 *Internship* Three Credit Hours

Prerequisite: Senior Standing

Open to senior business administration majors.

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues faced by today's firms and their managers, the kinds of information firms collect and use, and the development of solutions for business problems. Interns will spend ten to twelve hours each week working alongside a senior-level manager in a Charleston-area business.

BADM 490 *Independent Study* Three Credit Hours

Prerequisite: Senior standing with at least a 3.0 academic average. Approvals for enrollment during preregistration from sponsoring professor and department head are required.

This course may be taken by seniors desiring to engage in a scholarly research project of mutual interest to the student and the faculty member who directs the study. The project should culminate in a formal student research paper.

SCHOOL
OF
EDUCATION

Col. Tony Wayne Johnson, Dean

Associate Dean (Vacant)

School of Education

PROGRAMS LEADING TO TEACHER CERTIFICATION

Dean of Education & Director of Teacher Education: Johnson
Associate Dean: (Vacant)
Professors: Elksnin, Henson, Johnson, Ouzts, Williams
Associate Professors: Altieri, Brown, Bullock, Hewett, Jarman, Jefferson, Lehr, Murray, Woelfel
Assistant Professors: Jones

The purpose of the School of Education's undergraduate programs is to serve the people of the Lowcountry, the state of South Carolina, the Southeast, and the nation by providing high quality programs in the preparation of secondary teachers and a K-12 program in physical education. While approximately 50 percent of the undergraduate student body is from the state of South Carolina, students from across the United States are involved in education programs at The Citadel. Reciprocal arrangements with other states and the accreditation of the National Council for Accreditation of Teacher Education facilitate certification in all fifty states.

Statement of Philosophy

The philosophy of the School of Education at The Citadel is based on five fundamental propositions. These propositions serve to orient the mission and conceptual base of the School, guide the actions and value system of the faculty, shape the curricula of the various programs, and provide to its faculty their sense of purpose and meaning for teaching, scholarship, and professional service. These five propositions are:

(1) The faculty is committed to promoting education for all individuals to the fullest extent possible. With the implementation of appropriate teaching and assessment strategies, a fundamental guiding belief is that all students, though having unique learning styles and experiences, are capable of learning.

(2) It is the educator's responsibility, with the aid of appropriate resources and support, to establish a mutually respectful environment where effective learning occurs for all students.

(3) Education is a systematic effort to facilitate the knowledge, skills, at-

titudes and values necessary for the student to function in a diverse society.

(4) The faculty is committed to upholding the highest professional standards in all situations in which they model these standards to students through their teaching, research, and service endeavors.

(5) The faculty is committed to an open interchange of ideas wherein the perspectives of all are valued.

The School's Mission

The mission of the School of Education at The Citadel is to support the development and preparation of individuals who are ***knowledgeable*** about the learning process and learners and who are ***effective, ethical,*** and ***reflective*** educators prepared to assume ***leadership*** roles in the profession and community. Further, with a focus toward ***learner-centered education***, they are effective in educating a diverse learner population to high academic standards. The mission is based on the School's philosophy and conceptual model. It is composed of seven goal statements and their inherent performance indicators.

Goal 1: To prepare school personnel who are well grounded in the School's "Leadership for Learner-Centered Education" knowledge and conceptual base.

Goal 2: To prepare school personnel who integrate theory and research into practice.

Goal 3: To prepare school personnel who uphold the highest professional and ethical standards.

Goal 4: To prepare school personnel who will serve as leaders in education at the local, state, regional, and national levels.

Goal 5: To prepare school personnel to serve in a rapidly changing and diverse society.

Goal 6: To prepare school personnel who are committed to life-long personal and professional development.

Goal 7: To model for school personnel the highest professional standards through the faculty's efforts in teaching, research, and service.

The School's Conceptual Model

The School of Education has adopted and is implementing **Leadership for Learner-Centered Education** as its knowledge base and conceptual framework. This conceptual model serves to orient all programs of the School toward maximizing the learning of an individually and culturally diverse student population.

This conceptual framework for developing professional **leaders** focused toward a **learner-centered education** is well grounded in extant research, the values and current thinking of our profession, and best practices related to teaching, learning, and schooling, as well as other domains of knowledge related to the development of **knowledgeable, ethical, reflective** leaders in the profession of education who are not only **effective** but also directed toward excellence in all their efforts. The conceptual framework is designed to explicate the purpose and goals of the programs and describes how the programs are organized to reach desired outcomes.

Our programs in the School of Education are designed to produce educators who are **knowledgeable** about learners and the learning process, as well as produce **effective, reflective, ethical** personnel who are prepared to assume **leadership** roles in the profession and the community.

Learner-centered education is defined by McCombs and Whisler (1997) as "the perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, talents, interests, capacities, and needs) with a focus on learning (the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest levels of motivation, learning, and achievement for all learners.)" This dual focus, then, informs and drives educational decision making. Leadership focused toward learner-centered education in this perspective embodies the learner and learning in the programs, policies, and teaching that support effective learning for all students.

Director of Teacher Education

The Director of Teacher Education is the college official charged with the responsibility for the development, implementation, administration, and monitoring of all teacher education activities at The Citadel. The director assures that all Citadel programs meet the standards and criteria set forth by:

1. The South Carolina General Assembly
2. The South Carolina Department of Education
3. The National Council for Accreditation of Teacher Education

Teacher education at The Citadel is dedicated to the development of teachers for the public schools of the state and nation. Teacher education programs prepare students to teach in secondary schools. In addition, a program for K-12 certification is available in physical education (see the Department of Health, Exercise and Sport Science section for additional information).

Admission to the Major

Admission to an Education Major at The Citadel is a three-level process. Students should read this section carefully so that this process is well understood.

Assignment to Pre-Education

Students who are interested in the teaching profession are first assigned to Pre-Education or Pre-Physical Education (Teaching Track). For those interested in Physical Education (Teaching Track), please refer to the requirements of the Department of Health, Exercise and Sport Science. At this level of admission, the responsibility of the student is to successfully complete all three parts of the PRAXIS I examination. Successful completion of this test of basic skills in reading, writing and mathematics is a requirement for admission to the Education or Physical Education (Teaching Track) major, and this requirement should be met by the end of the sophomore year. In addition, the student is responsible to make certain, with the counsel of his or her advisor, to follow the appropriate curriculum. The student should also be aware of the importance of maintaining a grade point ratio that will allow admission to the teacher education major.

Admission to Education Major

To be admitted to the Education Major, the student enrolled in pre-education must have the support of his or her advisor relative to suitability and interest in teacher education and must also have:

1. Successfully completed all three parts of the PRAXIS I;
2. Maintained a cumulative Grade Point Ratio of 2.500 or higher on at least 45 credit hours of coursework taken at The Citadel;
3. Passed both EDUC 101 and EDUC 202.

Students who have not met these requirements by the end of their sophomore year will not be permitted to enroll in 300- or 400-level Education courses and will be encouraged to consider another major.

Admission to the Internship in Teaching (EDUC 499 or PHED 499)

Students must make a formal application for admission no later than May 1st of the previous academic year for admission to the spring internship in teaching. The internship is not normally offered to students in fall semesters. This application will be reviewed by the Committee on Admissions and Retention and will include, among other things, recommendations from professors in completed professional education and content area courses, recommendations from general education faculty, and an evaluation by the student's advisor regarding the student's suitability and interest in teacher education. In addition, the student must have:

1. Completed at least 90 credit hours of coursework;
2. Completed the following professional education courses with a cumulative GPR of at least 2.500: EDUC 101, 202, 206, 306, 312, and 401;
3. Completed all teaching field requirements with a cumulative GPR of at least 2.500;

4. Maintained a cumulative GPR of at least 2.500;
5. Completed successfully all previous field experiences;
6. Have on file at The Citadel a PRAXIS II subject area test score.

The Director of Teacher Education will be informed of the results of this review and will send official notice of admission or rejection to the student. In the absence of significant extenuating circumstances, a student not eligible for the Internship in Teaching will be required to change majors.

Graduation Requirements

To meet graduation requirements, the Teacher Education major must complete all requirements for one of the teaching field courses of study and must have earned a GPR of at least 2.500 on each of the following: all cumulative coursework, all professional education courses, and all teaching field coursework.

Completion of the curricular requirements may result in licensure by the South Carolina Department of Education. A passing score on PRAXIS II is required for teacher licensure by the South Carolina Department of Education.

Education Course Descriptions

EDUC 101 *Education in Modern Society* Three Credit Hours

Open to any interested student.

An orientation to teaching as a profession and to the teacher-training program. Study and discussion on school organization and teachers' roles and responsibilities; personal and professional guidance. Introduction to the learner-centered conceptual base of the department.

EDUC 202 *Educational Psychology* Three Credit Hours

This course focuses on the dynamics of human learning and the psychological principles that serve as the foundation for educational practice. The general goal is to introduce students to the field of educational psychology and to teach them how to apply the concepts, theoretical principles, and research findings from the discipline of psychology to the planning and implementation of effective instructional strategies in the classroom. Major emphasis is placed on assisting the student in gaining a functional knowledge of the ideas explored. Moreover, through this course the college student who is preparing for employment in the field of education is acquainted with many facets of the teacher's role as a decision maker in the teaching/learning process. Class discussions, activities, and field experience focus on the connections between theory and practice and provide students with opportunities to apply psychological principles and solve practical problems.

Note: Prior to the conclusion of this course, it is expected that students will have completed the Praxis I (PPST) exam and will have scores on file at The Citadel.

EDUC 206 *Adolescent Development* Three Credit Hours

A survey of the basic principles and theories of human development with a focus on adolescents and their educational processes. The field experience is designed to interrelate college classroom learning with public school observations and activities.

EDUC 306 *Teaching Reading in the Middle and High School* Three Credit Hours

Prerequisites: EDUC 202

Designed to acquaint prospective middle school and high school teachers with reading practices geared to their students. The course will include a broad survey of the field of reading with attention given to some diagnostic procedures and the development of Reading Across the Curriculum programs for the middle school and high school levels. Different subject areas will be considered. Field experience in a public school is among course requirements.

EDUC 307 *Child Development* Three Credit Hours

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development in childhood. Emphasis on techniques of motivation, principles of learning, learning styles, individual differences, and developmental problems. Field experience is required.

EDUC 312 *Teaching Students with Special Needs* Three Credit Hours

Prerequisite: EDUC 206

Teaching Students with Special Needs is an introductory-level course for education majors and other interested students. The course is designed to prepare prospective teachers to define and identify characteristics of students with disabilities and students at risk for school failure. Teaching Students with Special Needs is based on the premise that it is the teacher's responsibility to meet the needs of every learner, typical or atypical. A field experience component of ten hours in the school is required.

EDUC 401 *Methods and Materials of Middle and High School Teaching* Three Credit Hours

Prerequisites: Admission to Senior Level Study

Study of the aims, methods, and materials employed in middle and high school teaching; organization of subject matter; motivation and direction of learning; development of attitudes, appreciations, and ideals; classroom presentation of formal materials. The utilization of technology and the development and use of evaluative instruments in the total teaching-learning process will be emphasized.

EDUC 402 *Special Methods in Teaching* Three Credit Hours

Prerequisites: Admission to Senior Level Study

Special techniques, theories, and materials in teaching in the content area of specialization in middle school (grades 5-8) and high school (grades 9-12).

EDUC 409 *Special Topics in Education* Three Credit Hours

Prerequisite: permission of the instructor and/or department head

A course designed for the intensive study of a current problem in the field of education at the undergraduate level.

EDUC 420 *Independent Study/Research* Three Credit Hours

Prerequisite: permission of the instructor and/or department head

This course will offer students an opportunity to acquire a deeper knowledge in the area of specialized interest related to the field of education. Prior to enrollment, each student must submit a plan of study to the department. A formal research paper will be required. Credit in independent study/research is limited to 3 semester hours in a degree program.

EDUC 499 *Internship in Teaching* Twelve Credit Hours

Prerequisites: Refer to requirements for admission to internship.

A requirement for certification, observation and teaching in approved schools under approved supervising teachers, supervision by college instructor. Assignment only in major teaching field. This internship is a minimum of twelve weeks. All students provide their own transportation. Formal application for admission to the Spring internship in teaching must be made no later than May 1st of the previous academic year.

Fine Arts Course Descriptions

FNAR 205 *Music Appreciation* Three Credit Hours

A non-technical course to enhance the student's understanding and enjoyment of music by a twofold approach: first, to gain fundamental knowledge of style, content, and form of the most outstanding works of the great composers; and second, to study the evolution of musical art up to the present time; particular emphasis is placed upon the latter.

FNAR 206 *Art Appreciation* Three Credit Hours

The theory of abstract principles and material techniques as applied in the evaluation of works of art. The employment of such theory in an introductory study of famous art works.

FNAR 207 *Survey of Art History* Three Credit Hours

An introduction to the art of China, Egypt, the Mediterranean under Rome, Byzantium, and Gothic Europe. Art works from Africa, India, and Japan will also be considered. Major works will be discussed in relation to their cultural and philosophical context and content.

FNAR 209 *Music Theory I* Three Credit Hours

Study of the components of musical composition; construction of major and minor scales, identification of harmonic and melodic intervals, construction of primary triads and their inversions, transposition of band instruments, sight singing and ear training.

FNAR 210 *Music Theory II* Three Credit Hours

Prerequisite: FNAR 209

Continuation of Music Theory I. The structure and use of all diatonic chords and their inversions, identification of nonharmonic tones, introduction to modulations, sight singing and ear training.

SCHOOL
OF
ENGINEERING

Col. Dennis J. Fallon, Dean

Department of Civil and Environmental Engineering
Col. Kenneth Paul Brannan, Head

Department of Electrical and Computer Engineering
Lt. Col. Johnston William Peeples, Head

Department of Civil & Environmental Engineering

Department Head: Brannan
Professors: Brannan, Dion, Fallon
Associate Professors: Davis, Murden, Woo
Assistant Professors: Bower, Mays, Plemmons

Department's Mission Statement

The mission of the Department of Civil and Environmental Engineering is:

> To provide a nationally recognized student-centered learning environment for the development of future leaders in the civil and environmental engineering community through a broad-based, rigorous curriculum, emphasizing both theoretical and practical engineering concepts and the discipline of a strong work ethic.

The Department of Civil and Environmental Engineering recognizes the civil engineer as a people-serving professional who manages resources as well as technology. The civil engineer plans, designs, constructs, and maintains facilities essential to modern life in both the public and private sectors. Accordingly, the department strives to develop the skills of its engineering students in the management of resources—time, materials, money, and people through effective combination of the academic with military discipline. Consistent with the high aims of the civil engineering profession, the department seeks to ensure its academic program is underpinned by a broad base of ethical knowledge and behavior as well as modern leading-edge technology. The department accomplishes its mission by connecting students, faculty, and staff in a unique academic environment, achieving the intended development of the student through the enriched personal, professional, and educational growth of each individual.

Goals and Objectives

Program Educational Objectives

The Civil and Environmental Engineering program educational objectives are listed below.

- To provide a high quality course of study that integrates the important concepts of design with a solid theoretical and practical foundation to allow all graduates to seek professional careers in government, industry and consulting.
- To prepare all graduates to pursue life long learning through continuing education and/or postgraduate studies.

- To provide all graduates with an educational background broad enough to meet the requirements of good citizenship and enable them to serve in roles that require leadership, teamwork, decision making and problem solving abilities.

Departmental Objectives

As its primary goal, the Faculty of the Civil and Environmental Engineering Department seeks to offer and maintain a high quality undergraduate civil engineering education. To fulfill this goal, the department has the following objectives:

1. To provide a safe and hazard-free work environment for students, faculty, and staff.
2. To maintain a course of study that:
   - Is well-founded in ethical knowledge and behavior consistent with the high aims of the civil engineering profession;
   - Integrates the important concepts of design throughout the entire curriculum;
   - Qualifies students for graduate school;
   - Extends academic opportunities for students to participate in research;
   - Provides students with an understanding of an engineer's responsibilities of good citizenship and service to the engineering profession.
3. To continually enhance the teaching effectiveness of the civil engineering faculty.
4. To enhance the professional qualifications of the civil engineering faculty through professional development and scholarly activity.
5. To provide a modern academic building with appropriate equipment systems.
6. To continually improve the library collection of civil engineering technical and professional literature.
7. To provide continuing education opportunities for the engineering community.
8. To recruit and retain highly-qualified students.

Program Outcomes

A student at the time of graduation from the civil engineering program should have achieved an acceptable level of skills and knowledge in the following areas:

1. Mathematics, basic science, and engineering science provide the fundamental foundation for engineering computation. Hence, the student should possess the ability to apply knowledge in these most critical areas.
2. Engineering models the physical world; hence, a civil engineering student should have the ability to design and conduct experiments and analyze and interpret data from experiments.

3. Design is the heart of civil engineering. Therefore, a graduate must have the ability to design a system, component, or process to meet stated constraints.
4. Graduates must possess the ability to identify, formulate, and solve engineering problems. Each student must develop the skills to use modern engineering tools necessary for engineering practice.
5. Civil engineers are asked to serve as members of teams, either as leaders or as followers. Each graduate should have the opportunity to develop skills and the ability to function on multi-disciplinary teams.
6. Trust is paramount in the civil engineering profession. Society depends on civil engineers to conduct themselves in a professional manner at all times. Hence, each graduate must have an understanding of his or her professional and ethical responsibility. In addition, each graduate must obtain an education broad enough to include the impact of engineering in a global and societal context and knowledge of contemporary issues.
7. Graduates must be able to express their ideas clearly and effectively. Each student will have an opportunity to develop the ability to communicate effectively.
8. Finally, each graduate must realize that commencement is just that: "the beginning of his or her professional career." Each student must recognize the need for, and must possess the skills to engage in, life long learning.

Program of Study

The Civil and Environmental Engineering Department's four-year program begins with courses which provide a foundation of knowledge and skill in the basic arts and sciences. Limited specialization in engineering starts during the sophomore year. In the junior and senior years, the time is devoted essentially to basic professional subjects. Throughout the four years, the program emphasizes the development of habits of orderly study, investigation, sound reasoning, problem-solving and design, rather than the mere acquisition of factual information. It is stressed that an engineer is a professional thoroughly grounded in engineering science and technology, but also aware of the social, economic, ethical, and ecological implications of professional activities. The civil engineering curriculum is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Each year the curriculum is augmented by off-campus educators and engineers who lecture and moderate seminars in engineering specialties. Students' sources of knowledge are broadened by participation in these seminars and the student chapters of the American Society of Civil Engineers, Tau Beta Pi (honorary engineering society), and the Society of American Military Engineers.

LeTellier Hall was designed for the needs of civil and environmental engineering education and contains, in addition to laboratories and traditional classrooms, five multi-media classrooms; an assembly room with appropriate audiovisual aids for special lectures and society meetings. There are three computer facilities located in LeTellier Hall. To help ensure the best use of these facilities, priority access goes to students using software or capabilities specific to the

LeTellier sites. LeTellier 203 is a general purpose lab maintained by ITS. LeTellier 206 and 308 are on the CEE departmental network and require a departmental user account.

The Main Computer Lab — LeTellier 203

LeTellier 203 is the primary teaching and student-use computer facility in the Civil Engineering Department. The twenty-two student stations and one projection-capable instructor station and laser printer located in this lab are connected to the campus-wide network, CITnet, and provide direct Internet access via Ethernet. The campus-wide network includes: an ALPHA cluster which handles student email and information systems and the library information systems; a Novell network for printer access; and the UNIX systems administered by the Math and Computer Science Department. The software in the labs is Windows based. All machines in the lab have graphics-capable WWW browsers. The department's standard general purpose software includes: Microsoft Office, Mathcad, and AutoCAD LT. In addition, there are a number of course-specific software packages. Faculty also post: classroom presentations, handouts, programming examples, class notes and solutions to tests, and homework on the CEE Department's Web server. These postings are in a mixture of formats including PDF files, Mathcad docments, spreadsheet files, executable programs, and multimedia presentation files that students may review as needed before and after class.

The Special Application Lab — LeTellier 206

LeTellier 206 is the home of the Civil Engineering Department Special Applications Lab. Note: A CEE departmental computer account is required to log in on these workstations. The twelve student computers serve primarily as AutoCAD, GIS (ArcView) and structural design workstations. Other uses involve construction management, Global Positioning System (GPS) data analysis/adjustment, and traffic engineering studies. Occasionally, small sections of courses may be scheduled in the lab utilizing the instructors-only workstation and projection system. Each of these computers has a 250 MB ZIP drive to accommodate large student files. This laboratory is equipped with a networked laser printer, a B-size and E-size plotter. There is also a 8-1/2x14 fixed-bed color scanner in this lab for student use.

The Graphics Lab — LeTellier 308

LeTellier 308 is the home of the Civil Engineering Department Graphics Instruction Lab. Note: A CEE departmental computer account is required to log in on these workstations. The instructor's station is equipped with a projection system for both the computer and document camera. The twenty student computers serve primarily as AutoCAD workstations. Each of these computers has a 250 MB ZIP drive and a CDR/W drive to accommodate large student files. This laboratory is equipped with a networked A/B size laser printer.

Materials Testing Laboratory: Major items of equipment include a 400,000-pound universal hydraulic testing machine with a clearance of 8 feet for column testing and with a 36-inch-wide working platform; a 250,000 pound concrete cylinder testing machine; a 60,000-pound hydraulic universal testing machine; a 10,000-inch-pound torsion machine; and equipment for making tension, compression, shearing, and most other accepted and significant tests on metals concrete, wood and other structural materials. A transmission Polariscope and related equipment are available to investigate in a wide variety of two dimensional photo-elastic models.

Construction Materials Laboratory:
Bituminous Materials Testing. This laboratory contains equipment for making the significant quality control and identification tests on asphalt cements, cutback asphalts, and asphalt emulsions. Equipment for the design, mixing, compaction, and testing of asphalt concrete paving mixtures by the Marshall and other methods is included.

Concrete Materials Laboratory: A curing room, mixing equipment, air entraining measuring apparatus, scales, and other minor equipment are provided in this laboratory. Testing is accomplished using materials laboratory equipment.

Geotechnical Laboratories: The two soils laboratories are equipped with consolidmeters, triaxial and direct shear machines, unconfined compression machines, permeameters, Atterberg limit equipment, Proctor and Modified AASHTO Proctor compaction apparatus, standard sieves, soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

Fluid Mechanics Laboratory: Equipment is provided for a wide variety of experiments and tests involving the flow of water over weirs or through pipes, meters, orifices, or a Parshall flume. Other major items of equipment include a head loss and flow measurement fluid circuit apparatus, a Reynolds number device, two (2) hydraulic demonstration units permitting experiments involving many phenomena of open channel flow, and a centrifugal pump equipped to measure input and output of energy. In addition, a parallel-series pumping unit is available for students to study parallel-series pumping under a variety of system conditions.

Environmental Engineering Laboratory: Equipment is provided for water analysis determination (primarily according to "Standard Methods") of pH, alkalinity, turbidity, and color. Bacteriological examinations may also be made for wastewater analysis, biochemical oxygen demand, solids content and coliform testing. The equipment includes incubators, a muffle furnace, pH meters, dissolved oxygen probes, electrophotometic devices, an autoclave, a constant temperature refrigerator, a spectrophotometer, a drying oven, a water still, a fume hood, a microscope, and essential minor tools and equipment.

Other engineering equipment: Adequate equipment is available for the courses in engineering graphics, surveying, geomatics, as well as for the junior and senior courses. This equipment includes levels, theodolites, level rods, tapes, nine total stations, data collectors, eight Geographic Positioning System (GPS) survey grade receivers for use in the geomatics courses, and two GeoExplorer II Mapping Units.

Degree: The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies outlined in the course offerings section of this catalog.

Two humanity or social science electives, one technical elective, and one civil engineering design elective are required. These are selected from a list of approved electives maintained by the Civil and Environmental Engineering Department. In completing the two humanities or social science electives, the student will take one from the core curriculum. The other will be a departmentally approved course. The civil and environmental engineering design elective allows the students to specialize in a technical area of civil engineering by completing a design course at the senior level that integrates principles and practices of earlier courses into the design of the engineering system. Students who are on academic probation will not be permitted to enroll in upper level courses offered by the civil and environmental engineering department (i.e. junior and senior level classes). **All scheduled freshman and sophomore level engineering, science, and mathematics courses must be completed before a student will be permitted to enroll in senior level courses offered by the Civil and Environmental Engineering Department**.

Civil and Environmental Engineering Course Descriptions

CIVL 100 *Introduction to Civil and Environmental Engineering* Two Credit Hours

Required of all civil engineering freshmen. Meets the Citadel 101 first year seminar requirement.

The engineering process from problem formulation to the evolution of creative design is demonstrated through the practical solution of engineering problems. Course topics provide an introduction to the engineering profession, branches and functions of civil engineering, professional ethics, and the role of engineers in society. Course assignments include individual student exercises, team-oriented engineering projects, in-class presentations, and peer evaluations. As a foundation for lifelong learning in the civil engineering profession, students will develop and enhance study skills, including time management, learning strategies, computer techniques/tools, and effective communication. The course will introduce students to campus facilities, resources, support services and lifestyle issues useful for making a successful transition to the unique environment of The Citadel.

Laboratory: four hours.

CIVL 101 *Engineering Drawing* Two Credit Hours

Required of all civil engineering freshmen.

Use and care of drawing instruments; proper weights and types of lines for clear-cut and complete graphical representation; auxiliary and sectional views; pictorial representation with emphasis on isometric drawing, dimensioning, true lengths, and shapes; problems on points, lines, and planes; development of a reasonable skill in lettering. A substantial portion of the course is taught using CAD software.

Laboratory: four hours.

CIVL 202 *Statics* Three Credit Hours

Corequisites: MATH 131 and PHYS 221/271

Required of all civil engineering sophomores.

Scalar and vector solutions of problems in statics; resultants, reactions, and equilibrium of forces; analysis of simple trusses; friction; centroids and centers of gravity; and moments of inertia.

Lecture: three hours.

CIVL 205 *Surveying* Three Credit Hours

Corequisite: CIVL 101, CIVL 235

Required of all civil engineering sophomores.

Linear measurements, leveling, compass and transit/theodolite, total stations, theory of errors, latitudes and departures, areas, stadia, plane table, coordinate geometry, state plane coordinates, standard map projections and introduction to the use of electronic distance measuring devices.

Laboratory: three hours.

CIVL 207 *Geomatics* Three Credit Hours

Prerequisite: CIVL 205 and CIVL 235; corequisites CIVL 237, CIVL 100.

Required of all civil engineering sophomores.

Land surveying and boundary laws, public land surveys, topographic mapping, astronomic control for mapping, Geographic Positioning Systems (GPS), remote sensing, and Geographic Information Systems (GIS).

Lecture: three hours.

CIVL 209 *Computer Application for Civil and Environmental Engineering* Two Credit Hours

Required of all civil engineering sophomores.

Instruction in computer applications to problems chosen from civil engineering fields and fields clearly related thereto. Development of computer-based methods for analyzing civil engineering systems. The focus of the course is on algorithm development and implementation.

Lecture: one hour; laboratory: two hours.

CIVL 235 *Surveying I Laboratory* One Credit Hour

Corequisite: CIVL 205

Required of all civil engineering sophomores.

Application of principles obtained in CIVL 205 through actual field work. Horizontal control activities include distance measurements by tape and EDM, angular measurements by transit/theodolite or total stations, traversing, traverse closure computations, balancing computations, and preparation of boundary plat. Computer applications and computer-aided drafting are available.

Laboratory: two hours.

CIVL 237 *Geomatics Laboratory* One Credit Hour

Prerequisite: CIVL 235; corequisite: CIVL 207

Required of all civil engineering sophomores.

Applications of principals obtained in CIVL 207 through actual field work and office type work. Preparation of a topographic map, Geographic Positioning Systems mapping controls, Geographic Information System applications, and photogrammetric mapping applications.

Laboratory: two hours.

CIVL 301 *Dynamics* Three Credit Hours

Prerequisites: CIVL 202 with a grade of "C" or better.

Required of all civil engineering juniors.

Kinematics and Kinetics of particles or rigid bodies in plane motion with emphasis on the special cases of translation and rotation. The techniques of vector mathematics are employed.

Lecture: three hours.

CIVL 302 Highway Engineering Three Credit Hours

Prerequisite: CIVL 305; corequisite: CIVL 327

Required of all civil engineering juniors.

Alignment and earthwork drawings and computations; earthwork operations; routine tests of bituminous and nonbituminous highway materials; pavement and basic thickness design; design and testing of asphalt paving mixtures; construction of roadway elements; construction surveys; and an introduction into construction specifications. Problems are solved by both manual and computer methods. Preparation of construction plans for a highway, including use of survey data, plotting, design of horizontal and vertical control, storm drainage design, earthwork determination, and mass diagram calculations.

Lecture: three hours.

CIVL 304 *Mechanics of Materials* Three Credit Hours

Prerequisites: CIVL 202 with a grade of "C" or better.

Required of all civil engineering juniors.

Elastic properties of structural materials, internal stresses and strains, principal stresses and strains including Mohr's Circle, axial, torsion, flexure, shear, riveted and bolted joints, combined stresses, shear and moment diagrams, beam deflections. Supplemented by CIVL 307.

Lecture: three hours.

CIVL 305 *Transportation Engineering* Three Credit Hours

Prerequisite: CIVL 100, CIVL 101, CIVL 207, CIVL 237

Required of all civil engineering juniors.

Development and interrelationships of United States transportation systems; planning, financing, and design of land transportation, airport, and seaport facilities. Includes highway and railroad geometric and drainage design, public transportation facilities, sedimentation and erosion controls, airport layout and design, and design of harbors and port facilities.

Lecture: three hours.

CIVL 307 *Materials Laboratory* One Credit Hour

Prerequisite: ENGL 102; prerequisites or corequisites: CIVL 209, CIVL 304.

Required of all civil engineering juniors.

Laboratory supplement to CIVL 304. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous and non-ferrous metals, concrete, and wood; properties of materials as determined by results of tests in compression, tension, bending, torsion; behavior of columns; use of electric resistance strain gages; use of ASTM specifications and test procedures. Taken concurrently with or subsequent to CIVL 304.

Laboratory: two hours.

CIVL 309 *Structural Analysis* Four Credit Hours

Prerequisites: CIVL 304 with a grade of "C" or better and MATH 132

Required of all civil engineering juniors.

Structural analysis of determinate and indeterminate beams and frames using classical, approximate and computer-based methods.

Lecture: four hours.

CIVL 310 *Statics and Mechanics of Materials for Non-Civil Engineers* Three Credit Hours

Prerequisites: MATH 132 and PHYS 210/260

Vector solutions of problems in statics; principles of statics, resultants, reactions, and equilibrium of forces. In addition, the brief study of mechanics of materials including stress and strain relationships and various types of loading on structural members.

Lecture: three hours.

CIVL 312 *Introduction to Environmental Engineering* Three Credit Hours

Prerequisites: CHEM 151/161

Required of all civil engineering juniors.

Introduction to water, air, solid and hazardous waste (including radioactive material), and noise pollution and its control. Included are social and ethical considerations, legal and regulatory principles, risk analysis, the effect of pollutants on the environment, and the engineering principles governing the generation and control of these pollutants.

Lecture: three hours.

CIVL 313 *Hydrology and Water Resources* Three Credit Hours

Prerequisites or corequisite: CIVL 315

Required of all civil engineering juniors.

Hydrologic principles and application; hydrologic cycle which includes precipitation, evaporation/transportation, and infiltration; groundwater flow theory and application; measurement of surface water flow; hydrography development; extreme flow analysis; flood routing; design of storm water conveyance systems; and water storage applications.

Lecture: three hours.

CIVL 314 *Engineering Administration* Two Credit Hours

Required of all civil engineering juniors.

An elementary course in engineering administration with primary attention given to the basic principles of engineering economy as applied to the economic analysis of the costs of construction and operation of various engineering works. Computer applications in cost analysis. In addition, the course covers engineering ethics as applied by practicing engineers.

Lecture: two hours.

CIVL 315 *Fluid Mechanics* Three Credit Hours

Prerequisite: CIVL 202; either MATH 231 or MATH 234

Required of all civil engineering juniors.

An introduction to fluid characteristics, properties, and the fundamentals of fluid statics, fluid dynamics, fluid flow, and fluid measurements. Hydraulics, a practical application of fluid mechanics involving the flow of water, investigates the properties of orifices, weirs, flumes, pipes, and open channels, including their engineering applications. Classroom assignments will include design problems and problem solving using computers.

Lecture: three hours.

CIVL 327 *Asphalt and Concrete Laboratory* One Credit Hour

Prerequisite CIVL 307; corequisite CIVL 302.

Required of all civil engineering juniors.

Laboratory applications involving design, preparation, curing and testing of asphalt and Portland cement concrete. Includes testing for component properties, component selection and grading, material handling, mix design, blending, applicable standards and specifications, construction practices, quality control, specimen testing and safety. Marshall and super pave mix design procedures and testing methods are used to conduct laboratory data collection and analysis. Emphasis is placed on professional laboratory report preparation.

Laboratory: two hours.

CIVL 330 *Measurements, Analysis and Modeling for CEE Systems* Three Credit Hours

Prerequisite: CIVL 209

In this course, students are introduced to several concepts and techniques essential to the modern civil engineer: uncertainty and variability of physical systems; analysis of measurement systems; physical modeling and scaling techniques; mathematical and numerical modeling; and the impact of uncertainty on project economics. Both theory and application are presented with a very strong emphasis placed on hands-on exploration. The course requires students to employ the computer skills acquired in CIVL 209 for many assignments.

Laboratory: three hours.

CIVL 402 *Geotechnical Engineering Laboratory* One Credit Hour

Prerequisite: CIVL 409; corequisite: CIVL 410

Required of all civil engineering seniors.

Field and laboratory applications of typical methods for determining engineering properties of cohesive and granular soils. Experimental topics include specific gravity, particle size distribution, clay soil consistency, engineering classification, permeability, compaction, consolidation, *in situ* soil properties, soil boring and sampling techniques, and shear strength parameter determination using unconfined direct, triaxial, vane shear and penetration apparatus.

Laboratory: two hours.

CIVL 404 *Reinforced Concrete Design* Three Credit Hours

Prerequisite: CIVL 309

Required of all civil engineering seniors.

Design of reinforced concrete structures using strength design theory. Design of beams, columns, combined stress members, footings, and retaining walls. Special attention is given to the use of current specifications for design and construction. The use of computer programs to facilitate analysis and design during the comprehensive problem is encouraged.

Lecture: three hours.

CIVL 406 *Steel Design* Three Credit Hours

Prerequisite: CIVL 309

Required of all civil engineering seniors.

Theory and design of steel structures using the load and resistance factor design method. Design of tension and compression members, beams and columns. Computer solutions are utilized for design shears, moments, and axial loads.

Lecture: three hours.

CIVL 408 *Water and Wastewater Systems* Three Credit Hours

Prerequisite: CIVL 315, CHEM 152/162, CIVL 312.

Required of all civil engineering seniors.

Introduction to engineering design principles and practices of the collection, transportation, and treatment of water and wastewater.

Lecture: three hours.

CIVL 409 *Introduction to Geotechnical Engineering* Three Credit Hours

Prerequisites: CIVL 304 (with a grade of “C” or better), CIVL 315, MATH 231, and MATH 234

Required of all civil engineering seniors.

Introduces the student to the rudiments of theoretical soil mechanics. Topics include engineering uses of soils; laboratory and field determination of soil properties; determination of phase relationships; engineering soil classification; soil-water interaction and seepage flow mechanics; stress effects of loading on soils at depth; and consolidation, compaction, shear strength, and bearing capacity theory.

Lecture: three hours.

CIVL 410 *Geotechnical Engineering II* Three Credit Hours
Prerequisite: CIVL 409; corequisite CIVL 402
Required of all civil engineering seniors.

An introductory course in geotechnical analysis and design. Topics include shallow foundations, spread footings, deep foundations, piles and caissons, lateral earth pressure for cohesive and cohesionless soils, slope stability analysis, subsurface investigations and special topics including such subjects as soil stabilization methods, geotextile applications, liquefaction, etc.

Lecture: three hours.

CIVL 418 *Fluid Mechanics Laboratory* One Credit Hour
Prerequisite: CIVL 315
Required of all civil engineering seniors.

Accomplishments of laboratory exercises and experiments to illustrate basic concepts of fluid mechanics and to validate empirical formulas used in hydraulic computations. Principal emphasis is on the phenomena associated with closed conduit and open channel flow of water measurement of velocities and flow rates and operational characteristics of pumps. A minimum of one experiment will involve the use of the computers to evaluate laboratory data.

Laboratory: two hours.

CIVL 419 *Environmental Engineering Laboratory* One Credit Hour
Prerequisite: CIVL 408
Required of all civil engineering seniors.

Accomplishment of chemical, physical, and microbiological determinations used in the examination of water and wastewater. Laboratory analysis to evaluate water quality will be performed, such as biochemical oxygen demand, suspended solids, pH, alkalinity, and others. A minimum of one laboratory experiment will involve the use of the computer to evaluate laboratory data.

Laboratory: two hours.

Approved Electives

The following courses are offered on demand. They constitute part of a list of courses (including courses offered by other departments) which are approved by the head of the Department of Civil and Environmental Engineering as satisfying the requirement that each civil engineering major complete a three-credit-hour technical elective.

CIVL 411 *Engineering Management* Three Credit Hours

Prerequisite: Completion of all freshman, sophomore, and junior courses or approval of the department head.

Technique of engineering planning and management using the critical path method (CPM) and program evaluation and review techniques (PERT). Both computer and noncomputer approaches are used. Relationships between owners, A-Es, and contractors are covered with emphasis on proper professional conduct by the engineer.

Lecture: three hours.

CIVL 416 *Modeling Civil Engineering Systems* Three Credit Hours

Prerequisite: Completion of required CIVL courses through the junior year or permission of department head

Modeling the behavior of a wide range of civil engineering systems using various analytical, computer-based, numerical, and experimental techniques. Introducing the concepts of probabilistic modeling using Monte Carlo Analysis.

Lecture: three hours.

CIVL 421 *Subdivision Planning and Design* Three Credit Hours

Prerequisites: CIVL 313, CIVL 302; corequisite: CIVL 408.

The elements of planning a subdivision including an introduction to planning, zoning, subdivision requirements, and review procedures; site development including the integrated design of roadways, storm drainage collection/ retention/ detention systems, sanitary sewer collection and transportations systems (pumping stations and force mains), potable water systems, and construction cost estimates and specification; and economic analysis with individual student participation in preliminary development of single family and multifamily projects on 20 to 25 acre tracts of land. Computer applications include use of spreadsheets and CAD.

Lecture: two hours; laboratory: two hours.

Civil and Environmental Engineering Design Electives

Each Civil and Environmental Engineering major must complete one of the following design courses in the spring of the senior year. Each course provides students an opportunity to:

- function with multi-disciplinary teams
- identify, formulate, and solve realistic engineering problems where economic, environmental, and sustainability, and manufacturability are considered
- understand professional and ethical responsibilities
- communicate effectively

- understand the political, global, and social impacts of engineering solutions
- understand the regulatory review process

CIVL 422 *Comprehensive Project Design in Environmental Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering, CIVL 313, CIVL 314, CIVL 408.

Application to civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive engineering problem devoted to water resources/ environmental engineering.

Lecture: two hours; laboratory: two hours.

CIVL 423 *Comprehensive Project Design in Structural Engineering* Three Credit Hours

Prerequisite: CIVL 404; Co-requisite CIVL 406.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive structural engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 424 *Comprehensive Project Design in Geotechnical Engineering* Three Credit Hours

Prerequisite: Senior standing in civil engineering.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive geotechnical engineering problem involving other aspects of civil engineering.

Lecture: two hours; laboratory: two hours.

CIVL 425 *Comprehensive Design Project in Engineering Practice* Three Credit Hours

Prerequisite: Senior standing in civil engineering. Site development projects require CIVL 421 as prerequisite. Highway/transportation projects require CIVL 302 as prerequisite.

Application of civil engineering principles, through group studies and lecture, to develop a solution for a comprehensive problem of general engineering practice involving other aspects of civil engineering.

Lecture: two credit hours; laboratory: two credit hours.

CIVL 450 *Civil and Environmental Engineering Internship* Three Credit Hours

Prerequisite: Permission of Department Head

This course gives Civil and Environmental Engineering students real-world work experience to complement the classroom education that they have previously received. Interns will learn about the variety of issues facing today's practicing engineer. Interns will spend at least five hours each week working alongside senior-level managers in Charleston area engineering firms or engineering related regulatory agencies coordinating these activities through the Department of Civil and Environmental Engineering.

CIVL 453 *Special Topics in Civil Engineering* Three Credit Hours

Prerequisite: Permission of Department Head

Selected topics in civil engineering. The offering of this course will depend upon the interest of the student, the availability of an instructor, and the approval of the department head. Since the content of this course may change, a student may repeat the course for credit with the consent of the department head.

Department of Electrical and Computer Engineering

Department Head: Peeples
Professors: Askins, Peeples
Associate Professor: Barsanti, Horner, Jerse, McKinney
Assistant Professor: Potisuk

General Information

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. Because World War II intervened, the first electrical engineering degrees were awarded to the class of 1948. The electrical engineering program is offered in two modes—day mode and the 2+2 evening mode. The day mode is open only to members of the South Carolina Corps of Cadets and enlisted active duty students assigned to one of The Citadel's ROTC Departments. Cadets must take sixteen hours of ROTC and four hours of Health and Physical Education in addition to two Required Physical Education non-credit courses. The 2+2 evening mode is open to transfer students and does not require ROTC or Health and Physical Education. Otherwise curricula, faculty, textbooks, laboratory equipment, course content, classrooms, and laboratory rooms are the same for both modes.

The Electrical and Computer Engineering Department is located on the third floor of Grimsley Hall, a first-tier engineering education facility that provides fully-equipped laboratories, classrooms and faculty offices. The related Departments of Mathematics and Computer Science, Physics, and Civil and Environmental Engineering are housed adjacent to the department, creating a "micro-campus" of science and technology.

The student branch of the Institute of Electrical and Electronics Engineers was established in 1962 and is an active component of the electrical engineering program. A Citadel chapter of Tau Beta Pi, the national engineering honor society, recognizes junior and senior students who meet the organization's high academic standards.

The electrical engineering program is accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

Mission

The mission of the Department of Electrical and Computer Engineering is to prepare the individual for professional work or for graduate study in the fields of electrical and computer engineering and to provide as many of the elements of a broad education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

In addressing its mission, the department strives, through small classes and hands-on experience in laboratories closely monitored by full-time faculty, to provide an environment highly conducive both to learning and to the development of close student-faculty relationships.

The electrical engineering curriculum places emphasis on a broad liberal education base, a strong background in mathematics and basic sciences, and a logical sequence of electrical and computer engineering courses that provide the breadth and depth necessary for continuous professional growth in today's technological society. In the junior year the electrical engineering student normally selects an area of professional emphasis such as computer engineering, control systems, communication systems, electronics, or power systems. An integral part of the program is the design component that develops the student's ability to address practical engineering problems. This is accomplished by the inclusion of engineering design problems and concepts throughout the curriculum and capped by a mandatory two-semester senior design course in which students undertake significant design projects.

Convinced of the great value of practical experience, the department encourages its majors to obtain gainful employment in electrical engineering or a related field for at least one summer, preferably between the junior and senior years.

Program Objectives

The Department of Electrical and Computer Engineering's program of study is designed to

- Provide a quality engineering education by offering a cohesive set of sequenced courses designed around a strong core curriculum that provides the breadth and depth required to practice engineering within the electrical and computer engineering disciplines in a technological society.
- Provide a solid foundation in basic sciences, mathematics, and engineering topics, and in the application of these disciplines to the solution of practical engineering problems.
- Provide a program that stresses oral and written communication skills as well as those computer skills required of engineers in a technological society.
- Attract and retain qualified electrical and computer engineering students.
- Provide up-to-date laboratory equipment so our graduates are familiar with the capabilities, application and operation of the equipment currently used in engineering analysis, design and research environments.
- Provide an environment that encourages creativity, fosters the need and desire for life-long learning, and promotes the awareness of contemporary issues facing society.
- Provide a program that emphasizes strong leadership and teaming skills.

Electrical Engineering Curriculum

The electrical engineering educational experience begins in the freshman engineering fundamentals courses, ELEC 104 and ELEC 105. These freshman courses develop basic skills and good teamwork habits through team case studies requiring the communication of creative ideas. The study of electrical engineering topics in the sophomore year includes 6 credit hours of electric circuit analysis, 3 credit hours of digital logic and circuits, 1 credit hour of electrical laboratory, and 3 credit hours of computer applications for electrical engineers. Theory is combined with application, demonstration, and experimental verification. In addition the first two years include 19 credit hours of mathematics, 8 credit hours of chemistry, 8 credit hours of physics, and 18 credit hours of English and history to provide the foundation necessary for an engineering education.

The junior year requires a total 21 credit hours of electrical engineering course work. Breadth of coverage is provided by courses in linear circuit analysis, electronics, systems (automatic controls), digital circuits and systems, electromagnetics, and electromechanical energy conversion. Many of these courses include engineering design problems drawn from the experience of the faculty. First semester juniors complete their sixth mathematics course, MATH 335 (Applied Mathematics II), which provides coverage of mathematical topics required in upper division electrical engineering courses. There is a single junior year elective course that must be technical in nature and outside the mainstream of electrical engineering.

The senior year provides depth in electrical and computer engineering by requiring five out of an available thirteen 400-level electrical engineering elective courses taught and at least one approved Computer Science elective. The elective courses are ELEC 401 (Electronics II), ELEC 403 (Electric Power Systems), ELEC 405 (Electrical Measurements) and ELEC 415 (Electrical Measurements Laboratory), ELEC 407 (Systems II), ELEC 413 (Advanced Topics in Electrical Engineering), ELEC 414 (System Simulation), ELEC 416 (Communications Engineering), ELEC 418 (Advanced Digital Systems), ELEC 419 (Computer Network Architecture), ELEC 423 (Digital Signal Processing), ELEC 424 (Solid-State Devices), ELEC 425 (Interference Control in Electronics), ELEC 426 (Antennas and Propagation) and CSCI 420 (Software Engineering). These electives provide the student the opportunity to pursue an area of interest. While narrow specialization is neither possible nor desirable at the undergraduate level, these three-credit electives provide depth in both design and theory in their specialized areas. Below are several examples of possible areas of concentration available to the student.

Computer Engineering

CSCI 223	Data Structures
CSCI 420	Software Engineering
ELEC 418	Advanced Digital Systems
ELEC 419	Computer Network Architecture
ELEC 423	Digital Signal Processing
ELEC 416	Communications Engineering

Power Engineering

CIVL 310	Statics and Mechanics of Materials for Non-Civil Engineers
ELEC 307	Nuclear Engineering
ELEC 403	Electric Power Systems
ELEC 407	Systems II
ELEC 405	Electrical Measurements
ELEC 415	Electrical Measurements Laboratory
ELEC 426	Antennas and Propagation

Communications

PHYS 308	Optics
ELEC 401	Electronics II
ELEC 416	Communication Engineering
ELEC 419	Computer Network Architecture
ELEC 423	Digital Signal Processing
ELEC 426	Antennas and Propagation

Electronics

PHYS 410	Thermodynamics
ELEC 401	Electronics II
ELEC 418	Advanced Digital Systems
ELEC 423	Digital Signal Processing
ELEC 424	Solid State Devices
ELEC 405	Electrical Measurements
ELEC 415	Electrical Measurements Laboratory

Electrical Engineering Design Experience

Engineering design is distributed throughout the electrical engineering curriculum. Introduction to the design process and the initial design experience occurs in the freshman courses, ELEC 104 and ELEC 105. The engineering profession and the ethical responsibilities of professional engineers are discussed. Design problems are posed that require little or no in-depth engineering knowledge. For example, a first problem might ask the student to design a dormitory room workplace. Functionality, aesthetics, and cost of implementation are a few of the issues to be considered. Case studies are assigned that provide an opportunity for the students to work in teams. The emphasis is on the synthesis of a product that meets broad requirements. The students are introduced to the concept of design in which there is no single right answer and relatively few limits placed on the creative process.

Techniques of analysis, synthesis, iteration, and approximations are studied in the sophomore and junior electrical engineering courses. Specialized design exercises illustrate the use of these techniques in the areas of circuits, systems, electronics, and digital circuits and systems.

The senior year provides the opportunity for the student to begin to focus on design techniques in a particular area of interest through the choice of at least five senior electrical engineering elective courses. Examples range from the use of a load flow program to determine operational conditions of a small power system in a contingency situation (ELEC 403), to the design of a state estimator (ELEC 407), to the design and implementation of digital filters (ELEC 423).

The design experience culminates in the required senior design courses, ELEC 421 and ELEC 422. This two-semester design sequence provides students the opportunity to work on a project of interest and provides the faculty the opportunity to guide students in their first major design experiences and emphasize once more the various constraints that may come into play in a design. The students are taught several different structured design approaches. Project definition and documentation are stressed. Design teams of three to four students are formed at the beginning of the first semester. Students are instructed on various practical aspects of design, such as layout considerations, safety, functionality, and documentation of design. The student design teams select or propose a major design project to be completed by the end of second semester. They must enlist a faculty advisor to guide their project. At the end of the first semester the design teams present their design proposals (written and oral) that include their preliminary design (block diagram level), a schedule for the following semester, and a cost estimate. In the second semester, the teams do the detailed design and build, test, refine, demonstrate, and document their design projects. In addition to the technical aspects, project management and presentation techniques are taught and applied. A detailed project specification is developed and placed under tight change control. Financial and scheduling aspects of the project are tracked. A final presentation in both written and oral form is required at the end of the semester, along with a working demonstration.

Minor in Electrical Engineering

Objectives: The minor in electrical engineering is designed to allow the student with quantitative and scientific aptitudes and interests to acquire a basic level of competence in one of two fields of electrical engineering.

Structure of the Minor:

1. ***Required Courses: (10 credit hours)***

ELEC 201 & 202	Electric Circuit Analysis I & II
ELEC 204	Electrical Laboratory
ELEC 206	Computer Applications for Electrical Engineers

2. ***Elective Fields of Emphasis:***

   a. Digital Electronics: (10 credit hours)

ELEC 306	Electronics I
ELEC 313	Electronics Laboratory
ELEC 311	Digital Logic and Circuits
ELEC 330	Digital Systems Engineering

OR

   b. Control Systems: (10 credit hours)

ELEC 309	Linear Circuit Analysis
ELEC 301	Linear Circuits Laboratory
ELEC 312	Systems I
ELEC 407	Systems II

3. ***Plan of Study:***

   Prerequisites and corequisites for each of the above courses are as presented in the course descriptions below. (Exception: ELEC 104 and ELEC 105 are waived as course prerequisites for the student pursuing a minor in electrical engineering.)

   Total Credit Hours Required — 20

Electrical Engineering Course Descriptions

ELEC 104 *Engineering Fundamentals I* One Credit Hour

Required of electrical engineering freshmen. Meets the first year seminar requirement.

An introduction to the engineering profession, branches and functions of engineering, professional ethics, and the role of engineers in society. Fundamentals of engineering problem solving and the use of calculators and computers as tools to aid in problem solving. This course also covers first year seminar topics including academic skills and lifestyle issues related to success in college.

Lecture: one hour. Laboratory: one hour.

ELEC 105 *Engineering Fundamentals II* Two Credit Hours

Required of electrical engineering freshmen.

Continuation of Engineering Fundamentals I to include the introduction of subject areas common to most engineering disciplines, such as mechanics, energy, engineering economy, electrical theory, and material balance. Introduction to the design process to include preliminary design team exercises.

Lecture: two hours.

ELEC 201 and ELEC 202 *Electric Circuit Analysis I and II* Three Credit Hours

Prerequisites for ELEC 201: MATH 131 or permission of the department head to allow it as a corequisite; prerequisite or corequisites: ELEC 104, PHYS 221/271.

Prerequisites for ELEC 202: MATH 132 or permission of the department head to allow it as a corequisite, a grade of "C" or better in ELEC 201; prerequisite or corequisites: ELEC 105, ELEC 204, ELEC 206.

Required of electrical engineering sophomores.

Basic electrical elements and sources, Ohm's and Kirchoff's Laws, techniques of DC circuit analysis, sinusoidal analysis and phasors, power, three-phase circuits, and transient response of simple circuits, uses SPICE to aid circuit analysis.

Lecture: three hours, two semesters.

Students must earn at least a "C" in ELEC 202 before enrolling in any courses for which ELEC 202 is a prerequisite.

ELEC 204 *Electrical Laboratory* One Credit Hour

Prerequisites or corequisites: ELEC 202 or ELEC 308, ELEC 206

Required of electrical engineering sophomores.

An introduction to the experimental method. Laboratory exercises are designed to supplement the material presented in ELEC 201 and ELEC 202.

Laboratory: two hours.

ELEC 206 *Computer Applications for Electrical Engineers* Three Credit Hours

Prerequisite or corequisite: ELEC 202 or ELEC 308

Required of electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. High level language programming of computers; the use of application programs for the study of electrical circuits in the time and frequency domains; data manipulation, data plotting, and equation solving using application programs such as MATLAB.

Lecture: three hours

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ELEC 301 *Linear Systems Laboratory* One Credit Hour

Prerequisite: ELEC 204, ELEC 309

Corequisite: ELEC 312

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 312.

Laboratory: two hours.

ELEC 302 *Electrical Machinery Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 316

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 316.

Laboratory: two hours.

ELEC 306 *Electronics I* Three Credit Hours

Prerequisites: ELEC 202, ELEC 204, ELEC 206; prerequisite or corequisite: ELEC 313

Required of electrical engineering juniors.

Characteristics of solid-state devices; theory and design of low-frequency amplifiers; transistor biasing and stabilization; design of multistage and feedback amplifiers, utilizing bipolar and MOS devices.

Lecture: three hours.

ELEC 307 *Nuclear Engineering* Three Credit Hours

Prerequisite: PHYS 222/272

An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; heat transfer and fluid flow; radiation hazards and shielding; nuclear propulsion; and controlled fusion.

Lecture: three hours.

ELEC 308 *Elements of Electrical Engineering* Three Credit Hours

Prerequisite: MATH 132

Required of civil engineering juniors.

Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective current, average power, and three-phase power.

Lecture: three hours.

ELEC 309 *Linear Systems Analysis* Three Credit Hours

Prerequisites: ELEC 202, ELEC 204, ELEC 206, MATH 234; prerequisite or corequisite: MATH 335

Required of electrical engineering juniors.

The study of continuous and discrete systems utilizing Laplace and z-transform theory.

Lecture: three hours.

ELEC 311 *Digital Logic and Circuits* Three Credit Hours

Prerequisite or corequisite: MATH 206 or consent of department head.

Required of electrical engineering sophomores.

Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evaluation of digital circuits using industry-standard digital integrated circuits. Employs HDL and other S/W design tools.

Lecture: three hours.

ELEC 312 *Systems I* Three Credit Hours

Prerequisite: ELEC 309

Corequisite: ELEC 301

Required of electrical engineering juniors.

An introduction to feedback control systems, system representation, stability, root-locus and frequency response, and compensation.

Lecture: three hours.

ELEC 313 *Electronics Laboratory* One Credit Hour

Prerequisites: ELEC 202, ELEC 204, ELEC 206

Corequisite: ELEC 306

Required of electrical engineering juniors.

Experimental studies coordinated with the subjects introduced in ELEC 306.

Laboratory: two hours.

ELEC 316 *Electromechanical Energy Conversion* Three Credit Hours

Prerequisite: ELEC 309 or consent of the department head; prerequisite or corequisite: ELEC 302

Required of electrical engineering juniors.

Analysis of transformers; fundamentals of electromechanical energy conversion; and study of DC, induction, and synchronous machines.

Lecture: three hours.

ELEC 318 *Electromagnetic Fields* Three Credit Hours

Prerequisites: ELEC 202, ELEC 204, ELEC 206, PHYS 222/272, MATH 234, MATH 335.

Required of electrical engineering juniors.

Static and magnetic fields; experimental laws and their relation to Maxwell's equations; Laplace and Poisson's equations; boundary value problems; and time varying fields, plane waves, and transmission line phenomena.

Lecture: three hours.

ELEC 330 *Digital Systems Engineering* Three Credit Hours

Prerequisite: ELEC 311

Required of electrical engineering juniors.

Characteristics, specifications, and design of digital systems; analysis and synthesis of sequential circuits; microprocessor interfacing.

Lecture: three hours.

ELEC 401 *Electronics II* Three Credit Hours

Prerequisites: ELEC 306 and ELEC 313

Characteristics and applications of analog and digital integrated circuits. CMOS digital logic, differential amplifiers, power amplifiers, oscillators and filter circuits.

Lecture: three hours.

ELEC 403 *Electric Power Systems* Three Credit Hours

Prerequisites: ELEC 206, ELEC 316, and ELEC 318

A study of electrical power generation, transmission, and distribution; load flow, faults, and system stability; and system economics. Design project required.

Lecture: three hours.

ELEC 405 *Electrical Measurements* Two Credit Hours

Prerequisite: Any two 300-level electrical engineering laboratory courses; prerequisite or corequisite: ELEC 415.

An introduction to modern electrical instrumentation and measurements. Topics include measurement theory, analog and digital signal conditioning, noise, transducers, instrumentation system design, digital interfaces, and computer-based instrumentation and measurement.

Lecture: two hours.

ELEC 407 *Systems II* Three Credit Hours

Prerequisite: ELEC 312

A continuation of Systems I with primary emphasis on digital control systems. Topics include state-variable analysis, simulation techniques, controllability, state-variable feedback, observability, and state estimator design.

Lecture: three hours.

ELEC 412 *Applied Probability and Statistics for Engineers* Three Credit Hours

Prerequisites: MATH 231, ELEC 206.

Required of all electrical engineering majors.

Application of the theory of probability and statistics in modeling random phenomena and signals; in the calculation of system responses; and in making estimates, inferences and decisions in the presence of chance and uncertainty. Applications will be studied in areas such as communications, power systems, device modeling, measurements, reliability and quality control.

Lecture: three hours.

ELEC 413 *Advanced Topics in Electrical Engineering* Three Credit Hours

Advanced topics in electrical engineering. Offered occasionally when the special interests of students and faculty coincide. The syllabus must be approved by the Electrical Engineering Faculty. This course may be taken only once for credit.

Lecture: three hours.

ELEC 414 *System Simulation* Three Credit Hours

Prerequisite: ELEC 312

An introduction to system concepts, mathematical models of systems, and simulation methods applied to a broad range of systems. Design project required.

Lecture: three hours.

ELEC 415 *Electrical Measurements Laboratory* One Credit Hour

Prerequisite or corequisite: ELEC 405

A laboratory course to complement ELEC 405.

Laboratory: two hours.

ELEC 416 *Communications Engineering* Three Credit Hours

Prerequisites: ELEC 306, ELEC 312, ELEC 318, and ELEC 330

Principles of amplitude, frequency, and pulse modulation; signal flow and processing in communications systems; and analog and digital communication systems.

Lecture: three hours.

ELEC 418 *Advanced Digital Systems* Three Credit Hours

Prerequisites: ELEC 311, ELEC 330

Experience in advanced digital design techniques and exposure to the development tools used in the design of advanced digital systems. Topics include the design of digital systems using VHDL, industry standard FPGA devices and software, and microprocessor hardware components.

Lecture: three hours.

ELEC 419 *Computer Network Architecture* Three Credit Hours

Prerequisite: ELEC 311

This course will cover network architectures and protocols. Included are transmission technologies, encoding/decoding schemes, packet switching, frame relay, ISDN, ATM and performance modeling techniques.

Lecture: three hours.

ELEC 421 *Design I* Three Credit Hours

Prerequisites: ELEC 302, ELEC 306, ELEC 312, ELEC 316, ELEC 330, and ELEC 318, or consent of the department head.

Required of electrical engineering seniors.

Initiation, design, scheduling, documentation and reporting on a major design project. Normally accomplished by students working in small groups. All students will make written and oral presentations on their contributions to the project. Financial, legal, ethical, societal, regulatory, environmental, manufacturability, and quality issues will be discussed and will constrain the designs as appropriate.

Lecture: one hour; laboratory: four hours.

ELEC 422 *Design II* Three Credit Hours

Prerequisite: ELEC 421 taken the preceding semester.

Required of all electrical engineering seniors.

Continuation of the major design project begun in Elec 421. Project implementation, documentation, and reporting. Normally to be accomplished by students working in the small groups formed in ELEC 421. The impact of the practical, societal, and governmental issues raised in ELEC 421 will be assessed. Each student will make written and oral presentations on their contributions to the project. A prototype demonstration and presentation of final results in a symposium format is required.

Lecture: one hour; laboratory: four hours.

ELEC 423 *Digital Signal Processing* Three Credit Hours

Prerequisite: ELEC 312

Introduction to the characteristics, design, and applications of discrete time systems. Continuous time and discrete time Fourier Transforms. FIR and IIR Systems. Design of FIR and IIR filters. Design of Chebyshev and Butterworth filters. Introduction to DSP architecture.

Lecture: three hours.

ELEC 424 *Solid-State Devices* Three Credit Hours

Prerequisites: MATH 335, ELEC 306, and ELEC 318

Basic principles governing the operation of solid-state devices are developed from fundamental concepts. P-N junction theory is developed and applied to the analysis of devices such as bipolar transistors, solar cells, detectors, and photo devices. The theory of field-effect devices is developed.

Lecture: three hours.

ELEC 425 *Interference Control in Electronics* Three Credit Hours

Prerequisites: ELEC 309, ELEC 318, and ELEC 330

An introduction to the control and measurement of interference between electronic devices. Analysis methods and practical design techniques to minimize both radiated and conducted emissions and susceptibility will be taught. The course will also cover ways of enhancing signal integrity in high-speed circuits and reducing crosstalk. Laboratory exercises and demonstrations will be used to reinforce the material.

Lecture: three hours.

ELEC 426 *Antennas and Propagation* Three Credit Hours
Prerequisites: ELEC 318 and MATH 335

Transmission, radiation, and propagation of electromagnetic waves by means of transmission lines, waveguides, optical fibers, and antennas. Design project required.

Lecture: three hours.

SCHOOL
OF
HUMANITIES
AND
SOCIAL SCIENCES

Col. Alfred J. Finch, Jr., Dean

Department of English
Col. James S. Leonard, Head

Department of History
Col. Winfred Bo Moore, Jr., Head

Department of Modern Languages
Col. Albert E. Gurganus, Head

Department of Political Science
and Criminal Justice
Col. Gardel Feurtado, Head

Department of Psychology
Lt. Col. Steve A. Nida, Head

Department of English

Department Head: Leonard
Professors: Allen, Hutchisson, Leon, Leonard, Redd, Rembert, Rhodes, White
Associate Professors: Lally, Lucas, Mailloux, Thompson
Assistant Professors: Bernstein, Calloway, Frame, Heuston, Solinger

Courses in English composition and literature are required for all freshmen and sophomores, regardless of their major fields of study.

Advanced standing with credits may be given to students who complete the College Entrance Examination Board Advanced Placement Test in English with a grade of three or better.

Major of English

The English major is designed for students seeking a broad education suitable for careers in such areas as law, business, the armed forces, teaching, medicine, or theology. In addition to a strong foundation in literature, the department offers a generous selection of elective courses that allows either a truly broad liberal arts education or an opportunity to take a number of courses within a secondary field.

The program within the English Department provides both depth and flexibility. Course offerings range from Anglo-Saxon literature to modern British, American, and world literature. Students may also take courses in creative writing, journalism, public speaking, and philosophy. A system of tutorials and seminars allows both small classes and independent study, and the Department encourages internships and study abroad.

Since they are allowed to take as many as eight electives outside the department during their sophomore, junior, and senior years, students have ample latitude to follow other interests. During their freshman and sophomore years, they take core curriculum courses ensuring a background in a modern language, the sciences, mathematics, and the social sciences.

The student majoring in English is required to take the following courses:

English 203 and 204 (Survey of British Literature I and II)
English 211 (Mythology) or 212 (The Bible as Literature)
English 303 or 304 (Shakespeare I or II)
English 301 (Chaucer) or 305 (Milton)
English 402 or 403 (Senior Seminar I or II)
One English course numbered 310-324 (Early British Literature)
One English course numbered 325-336 (Later British Literature)

Two English courses numbered 340-349 (American Literature)
Two English courses numbered 360-499 (World Literature, Criticism, Language, and Writing)
Four English courses numbered 301-499 (English Electives)
Philosophy 201 (Introduction to Philosophy)

For a tabulation of the requirements for the English major, see the Courses of Study section of this catalog.

Minor in Leadership Studies

The minor in Leadership Studies consists of courses from the departments of English, Business Administration, History, Political Science, and Psychology. The minor is intended to highlight and reinforce the place of leadership training as central to The Citadel experience. However, the minor is entirely self-contained, with no material connection to other leadership programs or activities at The Citadel; it focuses on an understanding of the nature of leadership and not on the development of leadership skills. The minor in Leadership Studies is intended for students who, majoring in whatever fields they have chosen, wish to supplement their study in those principal content areas with a scholarly consideration of the subject of leadership.

Objectives:

The Minor in Leadership Studies is designed to address learning, scholarship, and critical thinking about leadership from various analytical perspectives and, as a result, to give students a broad understanding of the nature of effective leadership. This minor complements the "leadership laboratory" aspect of cadet life at The Citadel through interdisciplinary study employing historical, political, literary, psychological, and business administration approaches to the subject. Whereas ROTC courses and participation in the structured, hierarchical regimen of The Citadel Corps of Cadets teach the students discipline, perseverance, respect for authority, and the ability to command, the minor in Leadership Studies provides a less practically oriented, more contemplative relation to the subject. Looking at real, fictional, and theoretical models of leadership, the various courses examine leadership questions not only with respect to effectiveness but also in their more problematic aspects—such as abuse of power, male and female stereotypes, cultural chauvinism, and questions of duty versus individual responsibility. The curriculum as a whole addresses issues of leadership as such, as opposed to a concern with issues directly related to the circumstances of particular times and places.

Structure of the Minor:

The minor in Leadership Studies consists of five required courses (15 credit hours total)—one each from the departments of English, Business Administration, History, Political Science, and Psychology:

Department	Course
Business Administration	BADM 371 Leadership in Organizations
English	ENGL 371 Literary Paradigms of Leadership
History	HIST 371 Historical Studies in Leadership
Political Science/Criminal Justice	PSCI 371 Leadership in Politics, or PSCI 305 American Presidency
Psychology	PSYC 371 Psychology of Leadership

Total Credit Hours Required—15, at least 9 of which must be completed at The Citadel.

English Course Descriptions

Unless otherwise indicated in the course descriptions, all advanced English courses are open to all students who have completed their sophomore English requirements (ENGL 201 and ENGL 202/215/218/219, or ENGL 203 and ENGL 204) or who have the approval of the department head.

The courses in philosophy are included in the English curriculum under subject code PHIL.

ENGL 101 & 102 *Composition and Literature I & II* Three Credit Hours Each Semester

Required of all freshmen.

The development of the basic skills of writing, reading, and analysis through the study of literary types. ENGL 101: Reading and evaluating essays; writing paragraphs and essays, including a research paper. ENGL 102: Writing essays on topics pertaining to selected readings in literature. Readings will include poetry and at least one of the other two major genres of imaginative literature (fiction and drama). ENGL 101 is graded on a scale of A, B, C, U. A student must earn a "C" or higher in ENGL 101 before taking ENGL 102.

Foreign students whose English language facility is judged to be less than adequate will be enrolled in a special, two-semester version of ENGL 101. Satisfactory completion of this course is a prerequisite for ENGL 102.

ENGL 201 & ENGL 202 *Major British Writers I & II* Three Credit Hours Each Semester

Prerequisites: ENGL 101 and ENGL 102

ENGL 201 is required of all sophomores other than English majors. ENGL 202 is one of four courses (the others are 215, 218, and 219) that can satisfy the second-semester core requirement.

Study in depth of major writers in British literature from the medieval period to the present. ENGL 201: *Beowulf*, Chaucer, Shakespeare, Milton, Pope, and Swift. ENGL 202: Wordsworth, Keats, Tennyson, Browning, Hardy, Yeats, and Eliot. Several themes assigned on the literature studied.

ENGL 203 & ENGL 204 *Survey of British Literature I & II* Three Credit Hours Each Semester

Prerequisites: ENGL 101 and ENGL 102

Required of all English majors. Students who have received credit for ENGL 201 and ENGL 202 cannot receive additional credit for ENGL 203 and ENGL 204.

First semester: A study of English literature from its beginnings to the end of the eighteenth century. Second semester: A study of English literature from the end of the eighteenth century to the present. Both courses will include some consideration of historical backgrounds and literary movements.

ENGL 205 *Informative Speaking* Three Credit Hours

Prerequisite: ENGL 101

The general principles of speech composition and speech presentation; practice in expository speaking. Includes the use of computer technology to create effective visual aids.

ENGL 206 *Persuasive Speaking* Three Credit Hours

Prerequisite: ENGL 101

The general principles of rhetoric; practice in speaking to secure a desired reaction from an audience. Includes the use of computer technology to create effective visual aids.

ENGL 207 *Introduction to Journalism* Three Credit Hours

Prerequisite: ENGL 102

An introduction to print journalism with emphasis on writing news and feature articles.

ENGL 208 *Humanities Special Topic* Three Credit Hours

Prerequisite: ENGL 102

A study of a particular aspect of literature, communications, or a related area.

ENGL 209 *Introduction to Film* Three Credit Hours

Prerequisite: ENGL 102

An introduction to the aesthetics and techniques of cinematic art.

ENGL 210 *The Literature of War* Three Credit Hours

Prerequisite: ENGL 102

A study of selected literature about war, to include the historical background of the literature and ways in which it reflects the attitudes of the authors and of the societies which produced it. The approach of the course will be general and is intended to appeal to a wide audience of students.

ENGL 211 *Mythology* Three Credit Hours

Prerequisite: ENGL 102

A study of mythology including Greco-Roman, Northern European, Native American and Eastern myths. A discussion of the leading theories concerning the origins, development, and significance of myths together with the allusive and allegorical use of myth in later literature and art.

ENGL 212 *The Bible as Literature* Three Credit Hours

Prerequisite: ENGL 102

A study of selected portions of the Old and New Testaments as literary masterpieces and cultural monuments, with some attention to the major systems of interpretation.

ENGL 215 *Masterpieces of American Literature* Three Credit Hours

Prerequisite: ENGL 101 and ENGL 102

Can be used to satisfy the second semester core requirement in English.

A survey of representative works of American literature from its beginning to the present, with some consideration of principal literary developments and historical issues. Authors may include Franklin, Emerson, Melville, Dickinson, Twain, James, Hemingway, Faulkner, O'Neill, Frost, Stevens, Hurston, O'Connor, and Rich.

ENGL 218 *Masterpieces of World Literature I* Three Credit Hours

Prerequisite: ENGL 101 and ENGL 102

Can be used to satisfy the second semester core requirement in English.

Study of works of world literature to 1650, both western and non-western, from major cultural centers such as ancient Greece, Rome, and India; Medieval Europe; Tang China; and Heian Japan. Readings will include epics, plays, and lyric poems.

ENGL 219 *Masterpieces of World Literature II* Three Credit Hours

Prerequisite: ENGL 101 and ENGL 102

Can be used to satisfy the second semester core requirement in English.

A survey of world literature (in translation) from 1650 to the present, with emphasis on both non-English European works and works written outside the Western tradition. The periods and topics covered will include the Enlightenment of the 17th and 18th centuries, European Romanticism and Realism of the 19th century, and developments in the literatures of Africa, India, Japan, China, and South America in the 20th century. Readings will include drama, poetry, and prose fiction.

ENGL 301 *Chaucer* Three Credit Hours

Open to juniors and seniors.

An introduction to Chaucer's language, art, and cultural milieu through readings of *The Canterbury Tales, Troilus and Criseyde,* and some of the shorter poems.

ENGL 303 & ENGL 304 *Shakespeare I & II* Three Credit Hours Each Semester

Open to juniors and seniors.

Each course will present students with different but representative selections from the comedies, histories, and tragedies. Since the courses will not overlap, students may take both.

ENGL 305 *Milton* Three Credit Hours

Open to juniors and seniors.

A study of *Paradise Lost, Samson Agonistes,* and representative prose works, with special attention to their philosophical content.

ENGL 310 *Literature of Medieval England* Three Credit Hours

Open to juniors and seniors.

A survey of the most important literature composed during the Old English and Middle English periods, exclusive of Chaucer. Some works will be read in the original languages, some in translation.

ENGL 320 *Sixteenth Century Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the principal English writers of the period, with particular emphasis on the prominent aspects of the Renaissance spirit.

ENGL 321 *Seventeenth Century Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of representative prose prior to the Restoration, of representative poetry of Ben Jonson and his "sons," and of John Donne and the metaphysical poets.

ENGL 322 *English Drama to 1642* Three Credit Hours

Open to juniors and seniors.

A study of representative plays, exclusive of Shakespeare's, from the medieval beginnings of English drama to the closing of the theatres in 1642.

ENGL 323 *Restoration and Early Eighteenth Century Literature* Three Credit Hours

Open to juniors and seniors.

A study of the new spirit of English prose, poetry, and drama which came with the Restoration. Some emphasis will be given to the philosophical, religious, political, and social backgrounds.

ENGL 324 *The Age of Johnson* Three Credit Hours

Open to juniors and seniors.

A study of the decline of Neoclassicism and the movement toward Romanticism in the poetry, fiction, drama, and nonfiction prose of the age.

ENGL 325 *The Romantic Movement* Three Credit Hours

Open to juniors and seniors.

A study of the chief features which culminated in the Romanticism of the nineteenth century, with special emphasis on the five major poets: Wordsworth, Coleridge, Byron, Shelley, and Keats.

ENGL 326 *Victorian Poetry and Prose* Three Credit Hours

Open to juniors and seniors.

A study of the period from 1830 to 1900, showing the effects of the Industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, Arnold, and Hopkins; and upon the prose of Carlyle, Arnold, Mill, and Ruskin.

ENGL 327 *Nineteenth Century British Novel* Three Credit Hours

Open to juniors and seniors.

A study of selected works of major nineteenth century British novelists such as Austen, Scott, the Brontes, Thackeray, Dickens, Eliot, Trollope, and Hardy.

ENGL 332 *Twentieth Century British Fiction* Three Credit Hours

Open to juniors and seniors.

A course in the reading and critical analysis of selected British novels by writers like Conrad, Joyce, Lawrence, Forster, Woolf, and Waugh.

ENGL 336 *Twentieth Century British Poetry* Three Credit Hours

Open to juniors and seniors.

A study of British poets from the 1890s until the present, with an emphasis on the work of Hopkins, Hardy, the poets of the First World War, Yeats, Thomas, and Auden.

ENGL 340 *Southern Literature to 1900* Three Credit Hours

Open to juniors and seniors.

A survey of the literary achievement of Southern writers from 1710 to 1900.

ENGL 341 *Early American Literature* Three Credit Hours

Open to juniors and seniors.

A study of American writings from the time of the first settlement through the colonial period, ending with early nationalism.

ENGL 342 *American Romantic Literature* Three Credit Hours

Open to juniors and seniors.

A study of American authors from the period of the establishment of a national literature. The course includes such writers as Hawthorne, Poe, Melville, Emerson, Thoreau, and Whitman.

ENGL 343 *Literature of American Realism* Three Credit Hours

Open to juniors and seniors.

A study of American literature following the Civil War and up to the twentieth century. The course includes local colorists and such writers as Dickinson, Twain, James, and Crane.

ENGL 346 *Twentieth Century American Fiction* Three Credit Hours

Open to juniors and seniors.

A study of major American fiction since 1900. Authors studied may include Fitzgerald, Hemingway, Faulkner, Stein, Mailer, Styron, Pynchon, and Morrison.

ENGL 347 *Twentieth Century American Poetry and Drama* Three Credit Hours

Open to juniors and seniors.

A survey of American poetry and drama since 1900. The course will cover such poets as Robinson, Frost, Eliot, Stevens, Pound, Moore, and Bishop, and such playwrights as O'Neill, Williams, Miller, Albee, and August Wilson.

ENGL 348 *Twentieth Century Southern Literature* Three Credit Hours

Open to juniors and seniors.

A study of the most important Southern authors of the twentieth century, with emphasis on significant regional topics such as the Fugitive and Agrarian Movements, the development of the Southern Tradition, and the Southern Gothic School.

ENGL 349 *African American Literature* Three Credit Hours

Open to juniors and seniors.

A survey of African American poetry, fiction, and drama, featuring works from the Harlem Renaissance, the Depression, and postwar and contemporary periods.

ENGL 360, ENGL 362, & ENGL 364 *A Survey of World Literature I, II, & III* Three Credit Hours Each Semester

Open to juniors and seniors.

Masterpieces of world literature in translation, including non-Western literature, with special attention to the philosophical content and development of literary forms. ENGL 360: From the *Rig Veda* to Dante. ENGL 362: From Boccaccio through the nineteenth century. ENGL 364: Twentieth century.

ENGL 368 *Twentieth Century Drama* Three Credit Hours

Open to juniors and seniors.

Representative plays of the twentieth century, with emphasis on European and non-Western works.

ENGL 370 *Adolescent Literature* Three Credit Hours

Open to juniors and seniors; designed for the pre-service secondary-school teacher.

A study of literature for the adolescent, including methods of introducing the major literary genres to the secondary-school student.

ENGL 371 *Literary Paradigms of Leadership* Three Credit Hours

Open to juniors and seniors.

A study of literary texts from various times and cultures that present models of leadership, both good and bad, and raise issues about leadership characteristics and responsibilities.

ENGL 375 *Special Topic in Literature or Language* Three Credit Hours

Open to juniors and seniors.

A study of an individual author, topic, or problem in literature or language.

ENGL 401 *Independent Study* Three Credit Hours

Prerequisites: Approval of the department head.

Open to senior English majors with a GPR of 3.0 or better.

A tutorial course individually designed to meet the needs or special interests of one or a few students. Assignments, tutorial sessions, tests, and papers will be assigned by the professor in consultation with individual students.

ENGL 402 & ENGL 403 *Senior Seminar I & II* Three Credit Hours Each Semester

Open to senior English majors.

A seminar on an individual author, topic, or problem, as suggested by members of the faculty or by groups of English majors and subject to the approval of the department head in consultation with the instructor. The principal requirement of the course will be a long research paper that will test the student's ability to effectively research a topic and construct a complex argument based on that research.

ENGL 407 *Principles of Literary Criticism* Three Credit Hours

Open to juniors and seniors.

A study of literary criticism from ancient Greece to the present, emphasizing the relation of the critical tradition to contemporary critical approaches to literature. Special attention to semiotic theory as it relates to the influence of language and visual images on thinking, composing, and action.

ENGL 411 *Legal Writing* Three Credit Hours

Prerequisite: ENGL 102

Study and practice of effective writing techniques and terminology pertinent to the legal profession.

ENGL 412 *Rhetoric of Law* Three Credit Hours

Prerequisite: ENGL 102

Study and practice of principles of oral argument applicable to the legal profession.

ENGL 413 *Advanced Composition* Three Credit Hours

Prerequisite: ENGL 102

The study and practice of advanced writing techniques, including use of computer technology for web publishing. This course fulfills state teacher certification requirements for advanced composition.

ENGL 414 *Modern English Grammar* Three Credit Hours

Open to juniors and seniors; designed for the pre-service secondary-school teacher.

An intensive study of the syntax of Present Day English. The course also includes a review of traditional grammar, focusing primarily on the parts of speech. Special attention is given to linguistic theory, particularly regarding the acquisition of language.

ENGL 415 *History of the English Language* Three Credit Hours

Open to sophomores with approval of department head, and to juniors and seniors; designed for the pre-service secondary school teacher.

A historical survey of the syntactic and phonological features of Old, Middle, Early Modern, and Present Day English. Special attention is given to the varieties of American English, particularly African American Vernacular English.

ENGL 426 *Creative Writing: Fiction* Three Credit Hours

Open to juniors and seniors.

A study of the craft of fiction and its most important elements. Students will consider appropriate models and, in a workshop setting, develop their own skills. Requirements include completion of a substantial piece of fiction.

ENGL 427 *Creative Writing: Poetry* Three Credit Hours

Open to juniors and seniors.

A study of the craft of poetry, including the examination of appropriate models and theories, and, in a workshop setting, directed practice in writing. Requirements include completion of six to eight well-crafted poems.

ENGL 499 *Practicum in Professional Writing* Three Credit Hours

Prerequisite: Permission of department head and supervising professor.

Open to seniors.

Students who have demonstrated their ability to write effectively work several hours per week in the Charleston community under the supervision of professionals in law, religion, health, engineering, communications, or other field. Students must provide their own transportation.

Philosophy Course Descriptions

PHIL 201 *Introduction to Philosophy* Three Credit Hours

An inquiry into the nature of philosophic thinking, especially with regard to the problem of knowledge and the nature of reality. Study of the classical origins of Western philosophy, as well as more recent developments.

PHIL 202 *Reasoning and Critical Thinking (Logic)* Three Credit Hours

A study of the principles and methods which distinguish valid from invalid arguments. After a brief examination of what an argument is, the concepts of validity and invalidity are introduced, and a systematic study of the principles governing the application of these concepts to arguments is undertaken. An extensive treatment of traditional Aristotelian logic (the syllogism, rules of validity, immediate inference, etc.) is supplemented by an introduction to principles of modern symbolic logic.

PHIL 301 *Ethics* Three Credit Hours

A study of the nature of morality and moral reasoning through critical analyses of the writings of classical and contemporary thinkers on this subject. Problems regarding the role of reason in human conduct will be examined in detail, with emphasis upon the nature of the good life, happiness, moral obligation and duty, right and wrong, and the nature of moral language.

PHIL 302 *Philosophy of Religion* Three Credit Hours

An analysis of what religion is, the role it plays in human life, and how it differs from such other areas of life as ethics and science. The arguments for and against the existence of God are examined, as is the appeal to religious experience (e.g., mysticism). Criticism of religion (e.g., that of Freud and Marx) is considered, as are the roles of faith and revelation and the questions of evil and immortality.

PHIL 409 *Seminar in Philosophical Topics* Three Credit Hours

Prerequisites: at least junior standing and consent of the instructor.

A study of selected topics from various fields of philosophy (e.g., philosophy of history, philosophy of science, aesthetics, philosophy of law) with special emphasis upon their contemporary relevance and interdisciplinary character. Content in any given semester to be determined by student needs.

PHIL 410 *Man in Crisis: The Problems of Good and Evil* Three Credit Hours

Prerequisites: at least junior standing and (due to limited enrollment) consent of the instructor.

A critical look at a variety of crises facing modern humanity and how they impact upon society; their trends, right/wrong, good/evil. Consideration of crises in relationship to theology, duty, freedom, honor, justice, law, and happiness. Some lecture, considerable discussion, and classroom presentations.

Department of History

Department Head: Moore
Professors: Moore, Nichols
Visiting Professor: Bonds, Boughan, Tracy, Wright
Associate Professors: Barrett, Bishop, Grenier, Knapp, Sinisi
Assistant Professors: Cox, Neulander, Preston, Roberts, Speelman

The Department of History endeavors to give students an acquaintance with, and an appreciation for, our historical heritage and seeks to enable them to see the relationship between causes and effects in the historical development of their own and other countries and of civilization at large. Furthermore, the study of history is intended to assist the student's development of critical thinking, including the analysis and evaluation of historical evidence and the ability to integrate and interpret such data. History has proven to be a useful preparation for careers in the business, legal, ministerial, military, and other public service professions, as well as a preparation for continuing study in graduate history programs. The Department offers the student majoring in history ample freedom in the selection of upper level courses within the department and, with 24 hours of general electives, among courses offered by other departments.

From within the department, students majoring in history are required to take the following courses: HIST 103-104 (History of Western Civilization) or HIST 105-106 (History of World Civilization); HIST 201-202 (Survey of American History); HIST 203 (Introduction to the Discipline History); two courses from Group I (European), two courses from Group II (American), one course from Group III (Latin American and Non-Western World), and one course from Group IV (Diplomatic/Military). In addition, students are required to take three additional courses as history electives.

Group I. European. HIST 321 (The Middle Ages), HIST 322 (Renaissance and Reformation), HIST 324 (The French Revolution and Napoleon), HIST 325 (Europe, 1815-1914), HIST 326 (Europe since 1914), HIST 327 (England to 1660), HIST 328 (England Since 1660), HIST 421 (The Ancient Greeks), HIST 422 (The Romans), HIST 423 (The Byzantine Empire), HIST 424 (History of Modern Russia), HIST 435 (Scotland since 1707), HIST 475 (World War I), HIST 481 (Hitler and National Socialism), and HIST 491 (Special Topics in European History).

Group II. American. AFAM 205 (Introduction to African American Studies), HIST 300 (Colonial America), HIST 301 (Revolutionary America), HIST 303 (The Early Republic), HIST 305 (The Gilded Age, 1865-1900), HIST 307 (U.S. History, 1900-1945), HIST 308 (U.S. History, 1945-present), HIST 310 (African-American History to 1865), HIST 311 (African-American History since

1865), HIST 402 (South Carolina History), HIST 403 (The American West), HIST 406 (The Old South), HIST 407 (The New South), HIST 409 (The Modern Civil Rights Movement), HIST 473 (The Great Crusade: Americans during World War II), and HIST 492 (Special Topics in American History).

Group III. Latin America and Non-Western World. HIST 417 (The Non-Western World), HIST 425 (Islam and the Middle East), HIST 450 (Colonial Background to Latin America), and HIST 451 (Latin America), HIST 452 (National Mexico), HIST 462 (The History of Premodern China), HIST 463 (The History of Modern China), HIST 464 (Silk Roads and Nomadic Empires), HIST 466 (The History of Japan), and HIST 493 (Special Topics in Latin American and Non-Western History).

Group IV. Diplomatic/Military. HIST 304 (Disunion and the War for Southern Independence), HIST 410 (U.S. Foreign Policy since World War II), HIST 483 (Great Captains), HIST 479 (Naval Warfare), HIST 487 (The Patterns of War to the Late Eighteenth Century), HIST 488 (The U.S. and the Patterns of War since the Late Eighteenth Century), HIST 489 (The Vietnam War), and HIST 494 (Special Topics in Diplomatic/Military History).

From outside the department, students majoring in history are required to take 12 semester hours of a modern language; PSCI 102 (American National Government), which meets the social science core requirement as designated by the College; and nine hours of political science (PSCI prefix) in courses numbered at the 300-400 level. All history majors are required to take at least 12 semester hours of English, 16 semester hours of science (8 hours each from the same science), and 6 semester hours of mathematics. For further guidance, see the curriculum for history majors in the Courses of Study section of this catalog.

Minor in History (not open to history majors)

Objectives:

A minor in history, reflecting the structured and sequential offerings within the department, affords students who do not choose to major in history the opportunity to develop expertise within the discipline consistent with their interests and their plans beyond graduation. The minor is designed to give the non-history major an introduction to the basic skills of the historian and the depth of advanced study of the discipline offered within the department whether generally or specifically.

Competencies, Knowledge, or Skills to be Achieved:

Students completing the minor will have the beginning skills of the historian and advanced work within the discipline consistent with their interests. They will be experienced both in technique and knowledge and therefore be better prepared for their professional options following graduation.

Structure of the Minor:

1. While the student may design the minor in history either on the basis of the history major or to key it to one of the four groups of courses offered by the department, a required course in all cases is HIST 203 (Introduction to the Discipline of History).
2. The student must choose one of the groups below for the history minor.

Except for world history, all courses by group may be found in this catalog under the major in history:

a. World History. A minimum of one course each from the following history groups (Groups I-IV): Europe, United States, Latin American/Non-Western World, and Diplomatic/Military.

b. European History (Group I). A minimum of four courses from the European history group.

c. United States History (Group II). (1) HIST 201/202 (Survey of American History). (2) At least two courses at the 300-level or above from the U.S. history group.

d. Latin American/Non-Western World (Group III). A minimum of four courses from the Latin American/Non-Western World group.

e. Diplomatic/Military (Group IV). A minimum of four courses from the Diplomatic/Military group.

Total Credit Hours required of all history minors: 15 hours beyond the College Core Requirements in History (HIST 103-104), at least 3 hours of which must be taken at The Citadel.

Note: For transcript purposes, the history minor, depending on the elective sequence chosen above, will be designated as one of the following: World History, European History, United States History, Latin American/Non-Western World History, or Diplomatic/Military History.

Minor in African American Studies

The Minor in African American Studies is designed to underscore the contributions of people of African descent to, and their roles in, American history and to emphasize the importance of diversity to the Corps of Cadets. Through broad interdisciplinary study, the program aims to highlight an appreciation for the significant ways race, gender, and ethnicity have combined to shape our cultural heritage while promoting the values of excellence in teaching, research, and community service. It further aims:

1. To improve student's knowledge of the African-American experience.
2. To cultivate students' ability to think critically, to express themselves effectively, and to respect cultural and gender diversity.
3. To encourage faculty to share their expertise with the community and to maintain a community service component which promotes special classes, symposia, forums; the result will be a contribution to the intellectual, cultural, and spiritual growth of The Citadel and the community.

Structure of the Minor: The minor will consist of 5 courses (15 credit hours). One of the courses is required of all minors. The other four must be taken in at least two different departments from a list of approved electives. Nine of the total fifteen hours must be completed through courses taken at The Citadel.

1. **Required Course:** All minors must satisfactorily complete the following course.

    AFAM 205 Introduction to African American Studies

2. **Elective Group A:** All minors must also satisfactorily complete at least two of the following Group A courses (a minimum total of six credit hours).

ENGL 349	African American Literature
HIST 310	African American History to 1865
HIST 311	African American History since 1965
HIST 409	The Modern Civil Rights Movement

   OTHER: Any Independent Study, Senior Research Project, Internship; or special topics course whose primary focus is the African-American experience and which is approved by the Director of the Program.

3. **Elective Group B:** All minors may take, and count toward the minor, up to two (a maximum total of six credit hours) of the following Group B courses.

ANTH 202	Cultural Anthropology
ENGL 340	Southern Literature to 1900
ENGL 348	Twentieth Century Southern Literature
HIST 406	Old South
HIST 407	New South
PSCI 307	Southern Politics
PSCI 341	African Affairs
PSCI 462	Constitutional Law: Civil Rights and Liberties
PSYC 305	Social Psychology
SOCI 304	Minority Group Relations

4. **Projected Course of Study:** Students interested in earning the minor will be instructed to file a declaration of intent with the director of the program by the end of the first semester of the junior year. This declaration will outline the projected course of study and will be approved by the director. In addition to approving this projected course of study, the director will assume responsibility for publicizing the program and for monitoring each student's progress toward fulfilling the requirements of the minor; in this latter capacity, the director will be responsible for verifying that the student has met the requirements of the minor and for notifying the Records Office to that effect.

   Total Credit Hours Required—15, at least 9 of which must be completed at The Citadel.

Minor in Leadership Studies

The Department of History also participates in the interdisciplinary minor in Leadership Studies. For a full description of this minor, please refer to the entry in this catalog in the Department of English section.

History Course Descriptions

AFAM 205 *Introduction to African American Studies* Three Credit Hours

Required for a minor in African American studies.

This course introduces the major disciplines and topics that comprise African American Studies. It also provides orientation to faculty, institutional, and community resources, and a foundation for subsequent coursework and research in the field. The interpretive frameworks include the slave community, black religion, the Harlem Renaissance, black cultural pride, and contemporary issues of race and gender..

HIST 103 and HIST 104 *History of Western Civilization* Three Credit Hours Each Semester

A two-semester survey of the development of European civilization from ancient times to the present. Among the major topics examined during the first semester (to 1648) are Classical Greece, Republican Rome, Imperial Rome, the Christian Church, Feudalism, the Renaissance, the Protestant Reformation, and the Age of European Exploration. Major topics examined during the second semester (since 1648) include Absolutism, the Enlightenment, the French Revolution, the Industrial Revolution, Liberalism, Nationalism, Imperialism, Modernism, and Totalitarianism.

HIST 105 and HIST 106 *History of World Civilization* Three Credit Hours Each Semester

A survey of the development of human civilizations, with special attention to cultural borrowing, demographic change, technological development, religion and philosophy. Topics examined in the first semester include the first civilizations of the Near East, the Mediterranean, Africa, Asia, and the Americas, the rise of bureaucratic empires, the spread of world religions, feudalism, and the Silk Road. Topics examined in the second semester include the Columbian Exchange, the African slave trade, the scientific revolution, industrialization, imperialism, and nationalism.

HIST 201 and HIST 202 *A Survey of American History* Three Credit Hours Each Semester

Required of all history majors.

Survey of American history from the period of discovery to the present; a brief treatment of the colonial period, followed by a more detailed study of such subjects as the causes of the Revolution, the framing of the Constitution, the development of political parties, the sectional conflict, economic progress and problems, and foreign relations; special emphasis placed on understanding the nature of American democracy and the role of the United States in world affairs from 1789 to the present.

HIST 203 *Introduction to the Discipline of History* Three Credit Hours

Required of all history majors and history minors.

An introduction to the history of the research and writing of history as a craft. According to the particular professor instructing, the course will address theories of history, computer simulation, the use of diaries, memoirs, and government documents, as well as the use of historic sites, architecture, photographs, paintings, cinema, and literary fiction as evidence in reconstructing and interpreting historical events.

HIST 300 *Colonial America* Three Credit Hours

A study of the founding and development of the British mainland colonies in North America through the 1760s. Topics include European motivations for exploration and colonization; the making of the Atlantic World and comparative colonization; the development of social, economic, political, labor, and religious institutions in British America; and international rivalries and conflicts.

HIST 301 *Revolutionary America* Three Credit Hours

A study of the origins, events, and results of the American Revolution, 1760s to 1800. Topics will include the political, economic, religious, and ideological origins of the Revolution; the military history of the Revolution; the participation of "outsiders"—women, Indians, African Americans—in the Revolution; the debate over the Constitution; the American Revolution as part of the "Age of Revolution"; and the challenges and crises of the new United States government during the 1780s and 1790s.

HIST 303 *The Early Republic* Three Credit Hours

A study of American history, 1800-1850, with an emphasis on politics, economics, military affairs, and religion. There will be detailed studies of men such as Jefferson, Hamilton, Jackson, Clay, Webster, and Calhoun. Significant attention will also be paid to the rise of sectionalism, the growth of American political party systems, the War of 1812, and the Mexican-American War.

HIST 304 *Disunion and the War for Southern Independence* Three Credit Hours

The political, economic, diplomatic, and military history of the United States, 1850-1865, emphasizing the forces that tended to bind or disrupt the Union and including a detailed account of the war.

HIST 305 *The Gilded Age, 1865-1900* Three Credit Hours

A study of U.S. History, 1865 to 1900. This course examines several large movements and developments, including entrepreneurial capitalism, immigration, constitutional affairs, politics, and agrarian reform. Special attention will be paid to Reconstruction, Western Expansion, and the Spanish-American War.

HIST 307 *U.S. History, 1900 to 1945* Three Credit Hours

A study of U.S. History, 1900 to 1945. This course examines the social, cultural, political, military, economic, and foreign policy development of the United States. Special attention will be paid to Progressivism, World War I, the Great Depression, and World War II.

HIST 308 *U.S. History, 1945 to 2000* Three Credit Hours

A study of U.S. History, 1945 to 2000. This course examines the social, cultural, political, military, economic, and foreign policy development of the United States. Special attention will be paid to the Korean War, the Cold War, Vietnam, the Civil Rights movement, the Great Society, the Reagan Revolution, and post-Cold War America.

HIST 310 *African American History to 1865* Three Credit Hours

This course is an historical examination of the African American experience from 1619 to 1865. The curriculum will move through the experiences of African Americans in the British American colonies and the newly formed United States, discuss the institution of slavery and definitions of race, the antebellum South, Abolitionism, and trace the meaning of Emancipation and how the Civil War affected the future of the black community.

HIST 311 *African American History since 1865* Three Credit Hours

This course will study the history of African Americans from 1865 to the present. It will begin with emancipation and reconstruction and highlight the social, political, and economic transformation of the black community in the late nineteenth century. Major themes of the course will include the Great Migration, World War I, the Depression, World War II, the Cold War, black leadership, and contemporary issues such as, Afrocentricity and the emergence and influence of Hip Hop culture in American society.

HIST 321 *The Middle Ages* Three Credit Hours

The nature of society and events in Western Europe from the 7th and 8th centuries A.D. until the decay of the medieval world in the fourteenth century. Topics include the rise of the Franks and the Papacy, the establishment of feudalism, the wars between the popes and the holy roman emperors, the Crusades, intellectual revival, establishment of town democracy, and rise of nation-states at the end of the period.

HIST 322 *Renaissance and Reformation* Three Credit Hours

The Renaissance as a European-wide movement emanating from the Italian peninsula; the crisis of the church medieval and the rise of the Renaissance papacy; Humanism, with special emphasis on the great painters, architects, and sculptors of the time; the Renaissance city-states and monarchies of France, England, Spain, and the Holy Roman Empire; and the religious upheavals of Protestantism, the Catholic Reformation, and civil and religious wars.

HIST 324 *The Era of the French Revolution and Napoleon* Three Credit Hours

A survey of the causes of the Revolution followed by an examination of the principal events of the period with stress on the major personalities, the ideologies and revolutionary mentality, the political and social aspirations of the lower social orders, the unstable nature of the various revolutionary governments, and the rise of Napoleon and his achievements.

HIST 325 *Europe, 1815-1914* Three Credit Hours

The course of European history from Napoleon's defeat at Waterloo to the outbreak of World War I. Emphasis is placed on political reaction and reform; the Industrial Revolution and its economic, social and political effects; the Darwinian revolution and its impact on Western thought about man and his origins; the rise of nation-states in Italy and Germany; overseas imperialism; and the factors that contributed to the outbreak of the First World War.

HIST 326 *Europe Since 1914* Three Credit Hours

A survey of the origins and impacts of two World Wars on the major European states, their political, social, and economic development, and their relative positions today.

HIST 327 *England to 1660* Three Credit Hours

A survey of English history from prehistoric times through the English civil war of the 17th century and its aftermath. Emphasis is placed on the development of Parliament, the monarchy, the legal system, and local government. The evolution of British society is traced from Celtic and Roman times through King Alfred, the Anglo-Saxons, the Normans, the Wars of the Roses, the Tudors, and the first Stuart monarchs. Special attention is paid to Celtic warfare, the Roman conquest, Anglo-Saxon warfare, the armored knights of Norman times, and the English legacy to Americans.

HIST 328 *England Since 1660* Three Credit Hours

A survey of English history from the Stuart Restoration to the present, including the Glorious Revolution of 1689, the reign of the Hanovarians, the development of England as an industrial power and leader in overseas expansion in the 18th and 19th centuries, its role in two world wars in the 20th century, its experience as a welfare state, and its decline as a great power.

HIST 371 *Historical Studies in Leadership* Three Credit Hours

Prerequisites: Core History Sequence

Case studies in how different eras and cultures have envisioned good leadership and of how significant people have embodied its qualities. Examples include: Ethics and Leadership in the Classical World, Founders of the American Republic, Great Military Commanders, and Civil Rights Leaders of the Modern World.

HIST 402 *South Carolina History* Three Credit Hours

A survey of the political, economic, social, and intellectual development of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

HIST 403 *The American West* Three Credit Hours

A study of the settlement of the West and its influence on American life. Topics examined include mountain men and missionaries, Indians and Indian figures, the cowboy and the cult of Western heroes, patterns of frontier violence, homesteading, mining towns, railroad building. Emphasis is given to national traits, like individualism, associated with the frontier experience and to the influence of the West on American life to the present day.

HIST 406 *The Old South* Three Credit Hours

A survey of major issues and institutions in the history of the American South from the colonial period through the Civil War. Particular attention is given to the plantation, slavery, states rights, fundamentalist religion, the ethic of honor, and the origins and consequences of the Civil War. Among the questions addressed are what caused a Southern regional mentality to develop and how different was the South from the rest of the nation?

HIST 407 *The New South* Three Credit Hours

A survey of major issues and institutions in the history of the American South since the end of the Civil War. Particular attention is given to the Cult of the Lost Cause, the New South Movement, racial segregation, progressivism, religion, music, literature, the second reconstruction, and the emergence of the sunbelt South. Among the major questions addressed are why, and how much, did the South change after the Civil War and does a distinctive South still exist?

HIST 409 *The Modern Civil Rights Movement* Three Credit Hours

This seminar introduces students to current research on the history of the modern civil rights movement, 1941-1975. The aim of this course is to explore the evolution of the modern civil rights era from its beginning during World War II and the integrationist perspective of the 1950s to the militant black power and separatist viewpoint of the early 1970s. It will also discuss how the black power movement grew out of the civil rights movement and how independent black politics, black cultural pride, and armed resistance to terrorism operated in tandem with legal efforts and nonviolent protest in the struggle for African American social equality.

HIST 410 *American Foreign Policy Since World War II* Three Credit Hours

Diplomatic problems arising from the war, increased responsibilities, the United Nations, American-Soviet rivalry, the Cold War, world treaties and commitments, national security strategies, economic policies, and other military and non-military initiatives in international relations.

HIST 417 *History of The Non-Western World* Three Credit Hours

Origins and development of selected non-Western cultures, examining their historical and cultural values and customs as well as their social and political institutions. Emphasis is placed on the cultures of China, Japan, Southeast Asia, the Indian Subcontinent, the Arab and Islamic world, sub-Saharan Africa, and the Americas.

HIST 421 *The Ancient Greeks* Three Credit Hours

A detailed examination of ancient Greek political history and the ancient Greek contribution to politics, war, philosophy, literature, and art; the Archaic and the Classical ages; and the Hellenistic period to the Roman conquest.

HIST 422 *The Romans* Three Credit Hours

A survey of Roman history from Rome's origins as a Latin village through its conquest of Italy, defeat of Carthage and Greece, and the Roman empire to dominance over the Mediterranean world; the empire's gradual corruption, loss of political freedoms, the transition to an absolutist, Christian monarchy. Emphasis is placed on the personalities and values of the Romans and how these led to Rome's glories and failures.

HIST 423 *The Byzantine Empire* Three Credit Hours

The course begins with the turn of the Roman Empire to Christianity in the 4th century, then traces how the new religion changed the nature of the Empire. The course covers the conquests of the Germans over its western territories and the Muslims over its southern parts during the early Middle Ages. The fortunes of the remaining "Byzantine Empire" are followed through its revival, and then its decline with the Crusades and its final destruction by the Ottoman Turks.

HIST 424 *History of Modern Russia* Three Credit Hours

History of the development of tsarist absolutism under the Romanov dynasty and of the religious, social, and economic institutions of the tsarist state. Intensive treatment of the 1917 Revolution and the institutional development of the Soviet state to world power status.

HIST 425 *Islam and the Middle East* Three Credit Hours

A general survey of Islamic history from its beginnings to the present, covering the nature of the religion and society created by Mohammed, the conquest of lands that became Muslim, the politics and culture of the Muslim golden age, the Crusades and Ottoman conquests, and the emergence of modern Islamic countries and problems in the Middle East.

HIST 435 *Scotland Since 1707* Three Credit Hours

A survey of the political, social, cultural, and economic history of Scotland since union with England. Topics include Jacobitism, the clan system, the Highland clearances, the industrialization of the Lowlands, and Scottish nationalism. Special emphasis is placed on attempts to retain Scottish distinctiveness while integrating into the wider community of Great Britain.

HIST 450 *The Colonial Background to Latin America* Three Credit Hours

A detailed examination of the pre-Columbian and post-Columbian experiences in Latin America to 1810. Emphasis is placed on the varied melding of the indigenous, European, and African contributors and the roles they played within the framework of the Iberian empires in America. A cultural and institutional approach provides a necessary appreciation of the present-day complexities of this region.

HIST 451 *Modern Latin America* Three Credit Hours
Beginning with a brief introduction to the colonial ambient and the Latin American wars for independence, the course explores the development of the several Latin American nations since 1810. Emphasis is placed on the major nations of the region such as Mexico, Brazil, and Argentina, as well as to the Andean nations and the still-volatile Caribbean. The economic and strategic roles of these nations are addressed.

HIST 452 *National Mexico* Three Credit Hours
A survey of Mexico from 1810 to the present. Topics include Father Hidalgo and the Wars of Independence, *caudillos* such as Antonio López de Santa Anna, the Liberal Reform of Benito Juárez, General Pancho Villa and the Revolution of 1910, and the Zapatista Rebellion of 1994.

HIST 462 *The History of Premodern China* Three Credit Hours
The history of China from its beginnings to the eve of its clash with the West in the nineteenth century. The course examines the development of premodern China's political, social, and economic institutions, many of which lasted into the twentieth century. Special emphasis will be given to premodern religion, popular culture, and daily life.

HIST 463 *The History of Modern China* Three Credit Hours
The history of China's tumultuous entry into the modern world. The course examines China's struggle to adjust its traditions to the reality of Western dominance and the radical changes in Chinese society that this adjustment caused. Emphasis will be given to the failure of the 1911 Revolution, the rise and victory of the Communist Party, the Cultural Revolution, and the regime of Deng Xiaoping.

HIST 464 *Silk Roads and Nomadic Empires* Three Credit Hours
This course looks at the history of the caravan trade routes across Eurasia that have become known as "The Silk Road." The significance of these trade routes lies in the fact that they ensured the distribution and mixing of luxury goods, religions, technologies, literatures, and peoples from one end of Eurasia to another. In fact, many scholars argue that these trade routes created an unified economic world system, which has made the cultures of Eurasia materially much stronger than those of any other continent. Moreover, the wealth generated by the silk roads often inspired the creation of nomadic empires that had an immense effect on the great agrarian civilizations that bordered the steppes. Through their immense military strength and prowess, these nomadic empires often significantly affected the histories of the outlying sedentary civilizations. Thus, this course's focus will be the Central Eurasian nomads and oasis-dwellers who played a central role in the functioning of the Silk Road and their impact on their agricultural neighbors.

HIST 466 *The History of Japan* Three Credit Hours
An examination of Japan's history from its prehistoric origins to its postwar economic miracle. Topics such as the "Horse-rider Theory," Heian court life, samurai rule, Japanese "feudalism," Shintoism, Japanese Buddhism, the Meiji Reform, the prewar militarization, and the postwar transformation into an economic superpower will all receive special attention.

HIST 473 *The Great Crusade: Americans during the Second World War* Three Credit Hours

A study of the United States in World War II which focuses upon domestic society and the relationship of the changing culture to the postwar America of global commitments and consumption of consumer goods.

HIST 475 *World War I* Three Credit Hours

This is a course on the Great War, the reality of which does not quite meet the stereotype. While there was the stalemate of the trenches, there was great movement in the East and even in the West in the last year. During the war, armies virtually rearmed with new weapons and retrained, adopting new tactics. Mass assaults gave way to storm squads; cavalry gave way to armor and aircraft. The squandering of lives led to mutinies. Economies saw unprecedented mobilization. It was total war, at a cost of 5500 lives every day for a 1500 day war, and one can argue that the outcome was far more cataclysmic than that of the Second World War.

HIST 479 *History of Naval Warfare* Three Credit Hours

A history of warfare at sea from ancient times to the present with emphasis on the historical development of naval architecture, technology and organization; the evolution of naval tactics and strategy, and the influence of seapower upon world affairs.

HIST 481 *Hitler and National Socialism* Three Credit Hours

A survey of the Nazi movement from its late nineteenth century antecedents to its culmination in 1945. Special emphasis will be given to the life of Hitler and to areas of controversial interpretation. Among these are the alleged reactionary nature of National Socialism, the "legal" rise of the party to power, the statesmanship of Hitler, his sanity, and the Holocaust.

HIST 483 *Great Captains: Major Commanders from Ancient Times to the Present* Three Credit Hours

An analytical and interpretative study of the character, styles of command, and achievements of the more influential commanders in the history of warfare from Alexander the Great to Rommel. Particular attention is given to the contributions of these historical figures, to their role in the development of the concept of command and strategic formulation in the Western world, and to the relationship of military to political leadership.

HIST 487 *The Patterns of War from Ancient Times to the Late 18th Century* Three Credit Hours

The patterns of war from ancient times to the eve of the American Revolution with emphasis on change in the technological, organizational, and social-political nature of war.

HIST 488 *The United States and the Patterns of War Since the Late Eighteenth Century* Three Credit Hours

The study of the patterns of war from the late eighteenth century to the present, with emphasis on the impact of technology, social-political factors, and organization on the waging of war in general and especially on American military practice.

HIST 489 *History of the Vietnam War* Three Credit Hours

The history of the American war in Vietnam, including the foundations of French imperialism in Indochina; native resistance; the First Indochina War; American policy, intervention, and withdrawal; the impact on American domestic society; and the fall of the Western-oriented government of South Vietnam.

Special Course Descriptions

These courses are intended to be offered on an occasional basis, according to student demand and staffing availability. In addition, those courses that suit a seminar or tutorial format will permit students to be exposed to modes of instruction and learning other than those emphasized in lecture-oriented classes.

HIST 490 *Research Project* Three Credit Hours

Prerequisite: Approval of department head and supervising professor.

An independent research project culminating in a formal paper. Research topic determined through consultation between student and supervising professor. Especially recommended for those students considering graduate or professional studies.

HIST 491 *Special Topics in European History* Three Credit Hours

Examples include the Crusades; the Scientific Revolution; the Age of Louis XIV; the Golden Age of the Hapsburgs, 1740-1914; the French Foreign Legion; the Russian Revolution as Portrayed in Literature and Film; the Development of the English Constitution; and Germany since 1945.

HIST 492 *Special Topics in American History* Three Credit Hours

Examples include African Americans in U.S. Military History, American Legal History, American Business History, American History as portrayed in photography and film, 20th Century American History as seen through Literature, the Roaring Twenties, the Depression and New Deal, and the U.S. from Korea to Vietnam.

HIST 493 *Special Topics in Latin American and Non-Western History* Three Credit Hours

Examples include Columbus and his World, Slavery in the Spanish Main, Portuguese Colonization of Brazil, History of the Ottoman Empire, and Twentieth Century Africa.

HIST 494 *Special Topics in Diplomatic/ Military History* Three Credit Hours

Examples include the Napoleonic Legacy in Warfare, the United States in World War I, the Cold War, Nuclear Weapons and Arms Control, Theories of Strategy and Policy, the French Foreign Legion and French Imperial Policy, the Panama Canal and the Balance of Power, the German Army since 1740, and the History of Intelligence and National Security.

HIST 495 *Special Topics in History* Three Credit Hours

Examples include Crime and Punishment through the Ages, Imperialism, Revolutions in the Western World, Science and Technology in the Western World, the History of Medicine, and Psycho-Sociological History.

HIST 496 *Seminar* Three Credit Hours

Subject to the approval of the department head, a seminar on some special topic or historical problem as proposed by faculty or history majors. Topics include Castro's Cuba, the Founding and Development of the State of Israel, Stalin's Russia, and the Presidency of Franklin D. Roosevelt.

HIST 497 *Tutorial* Three Credit Hours

Subject to the approval of the department head, the tutorial is designed to meet the needs or interests of one or a few students. Readings, tutorial sessions, papers, and/or tests will be assigned by the professor in consultation with individual students.

HIST 498 *Internship* Three Credit Hours

Prerequisite: Permission of department head.

Internships with the South Carolina Historical Society and similar organizations are offered to combine academic training with the acquisition of skills in archival work, historic preservation, and other types of applied history.

Geography Course Descriptions

GEOG 209 *World Geography* Three Credit Hours

formerly GEOG 109.

A course dealing primarily with the elements and principles of geography. Familiarity with important global features and locations is stressed. Topics include maps, oceans, atmosphere and winds, climate (elements and patterns), landform, soils and agriculture, mineral resources and industry.

GEOG 301 *Introduction to Geographic Information Systems* Four Credit Hours

Principles and applications of geographic information systems (GIS). Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, visualization, modeling, and output using one or more GIS products. Course includes a laboratory component.

GEOG 311 *Economic Geography* Three Credit Hours

The geographic foundations and distributions of economic activities in different parts of the world.

Department
of
Modern Languages

Department Head: Gurganus
Professors: Bahk, Del Mastro, Gurganus
Associate Professors: Andrade, Emory, Skow-Obenaus, Staley, Toubiana
Assistant Professors: Segle
Director of Modern Languages Resource Center: Emory

Command of foreign languages, ever a component of traditional liberal-arts schooling, has become a vital asset in today's global society and economy. The ability to communicate effectively with the millions of non-English speakers in the realms of commerce, government, science, and the arts serves crucial national interests. Cultural sensitivity, heightened through language study, furthers our relations with the world.

The language courses of the core curriculum cultivate four basic skills—reading, writing, listening, and speaking—with emphasis on communicative proficiency. The language minor enhances competence in the basic skills and allows for specialization in business practice, contemporary society, or literature. The language major hones fluency and imparts a detailed knowledge of life and letters.

The major is most flexible and has proven a sound preparation for coveted duty assignments, choice career opportunities in both public and private sectors, and graduate study in philology, business, law, or medicine. Students who excel are eligible for induction into the following national honor societies: Pi Delta Phi (French), Delta Phi Alpha (German), and Sigma Delta Pi (Spanish).

Plan of Undergraduate Major

Thirty-three credit hours of coursework are required in one language at the 300- and 400-levels. For all majors these required courses include 301 and 302; for Spanish, these also include SPAN 305.

Students who, through previous academic study or experience, are deemed qualified may bypass Elementary (101-102) and/or Intermediate (201-202) courses in their chosen language, provided that they pass the next higher level course with a C or better. Bypassed courses will be included on the Citadel transcript as if they had been completed at The Citadel on a Pass/Fail basis.

The Minor in French, German, or Spanish

Objectives:

The minor in French, German, or Spanish builds on skills developed in the elementary/intermediate sequence, taking the student beyond practical proficiency to more sophisticated modes of discourse and greater understanding of social norms.

Competencies, Knowledge, or Skills to Be Achieved:

Employing the latest technology, instruction in advanced conversation and composition expands and refines expression in social and professional contexts. Courses in the Department's various summer study-abroad programs offer total immersion and highly individualized tutorials. Courses in civilization and culture, business language, and literature, in addition to promoting greater fluency, provide an introduction to areas of specialization within the discipline.

Many language majors, recognizing the considerable advantages of versatility in the marketplace, now declare a minor in another language.

Structure of the Minor (French, German)

1. Required Courses
    a. 301 and 302 (in the chosen language)
    b. at least one 400-level course in the chosen language, taken at The Citadel or in a Citadel Study-Abroad program
2. Electives
    Two advanced courses (i.e., courses numbered 300 and above)

Structure of the Minor (Spanish)

1. Required Courses
    a. SPAN 301 and 302
    b. SPAN 305 or one 400-level course in Spanish, taken at The Citadel or in a Citadel Study-Abroad program
2. Elective
    Two advanced courses in Spanish (i.e., a course numbered 300 and above)

Total Credit Hours Required: 15 hours in one language at the 300-level and above.

The Minor in East Asian Studies

Objectives:

The minor in East Asian Studies provides well-qualified upperclassmen the opportunity to develop a secondary field of expertise in a discipline of vital national interest.

Structure of the Minor:

Fifteen credit hours, of which six hours are in language:

either CHIN 101/102, *Intensive Introduction to Chinese I and II,*
JAPN 101/102, *Intensive Introduction to Japanese I and II, or*
KORE 101/102, *Intensive Introduction to Korean I and II;*

at least three hours in history, chosen from:
- HIST 462, *History of Premodern China,*
- HIST 463, *History of Modern China,*
- HIST 464, *Silk Roads and Nomadic Empires,*
- HIST 466, *History of Japan;*

and at least three hours in political science, chosen from:
- PSCI 337, *East Asian Affairs,*
- PSCI 338, *Southeast Asian Affairs,*
- PSCI 433, *Topics in International Politics: Northeast Asian Affairs;*

and a three-hour elective from either history or political science, chosen from the courses listed above.

The intensive language course 101/102, taken consecutively in the same semester, will be offered MWF 0800-0850 and TR 0800-0915 fall semester, Korean one year, Chinese the next, then Japanese.

Prerequisite: In recognition of the difficulty of Chinese, Japanese, and Korean (Category IV languages by the Defense Language Institute's scale of hours required for mastery), registrants must have completed the core requirement in French, German, or Spanish (Category II languages).

Competencies, Knowledge, or Skills to Be Achieved in the Language Courses: The intensive-introduction sequences develop basic practical communication through standard cognitive-code methodology. Daily study and practice of phonetics, orthography, vocabulary, grammar, syntax, idiom, and culture cultivate the four skills critical to foreign-language mastery: aural comprehension, oral expression, reading comprehension, and composition. By the end of the course the diligent student will be able to converse intelligibly in general social situations, recognize and reproduce the phonetic alphabets and most-used characters of the pictographic writing systems, comprehend the gist of simple texts with the aid of a dictionary, and write brief summaries of those texts.

Credit for Study Abroad

The Citadel currently offers study-abroad programs in French and Spanish. Credit may be granted for courses in French, German, and Spanish taken abroad at other schools during the summer or the regular school year. The German Studies Summer Stipend ($1,000) and the Deutscher Bruederlicher Bund Scholarship ($1,000) assist qualified German majors with summer-study projects in Europe. Students who wish to study language abroad will be expected to show evidence of competence in the language classes they have completed. Such work must have prior approval from the head of the Department of Modern Languages.

Core Curriculum Language Requirement

Courses in languages must be taken consecutively. That is, a course numbered 101 precedes and is prerequisite to 102, 102 is prerequisite to 201, and 201 is prerequisite to 202. Graduation requirements in languages may be satisfied only by appropriate sequences of courses in the same language. Thus, French 101-102 must be followed by French 201-202 (not German or Spanish 201-202) and so forth. A student who wishes to satisfy the language requirement with a language not offered by The Citadel may exempt this requirement by transferring in twelve hours of that language from an accredited institution.

Bypass Placement, Bypass Credit, and Waiver of the Language Requirement

The Citadel requires four semesters of language study or its equivalent in the same language for all majors except engineering and education. Students who wish to continue a language studied in high school or elsewhere must take a placement test in the language. The placement test score determines the level at which the student will continue study of the language. Three credit hours will be awarded for each bypassed course if the student scores a grade of C or higher for the course into which he/she is placed.

For a student whose native language is not English, the language requirement at The Citadel is automatically waived, and the student is allowed to substitute general electives for the waived language courses. In order to receive exempt credit (courses given exempt credit appear in the transfer section of The Citadel transcript and meet hour requirements for graduation) for waived language courses, the student must complete at The Citadel, a regionally accredited institution, or an approved overseas institution, with a grade of "C" or higher, a course in the native language at the 202-level or above. If a course is completed at the 300-level or higher, twelve hours of exempt credit will be awarded. Students attending overseas institutions must have an official transcript mailed directly to The Citadel Registrar. A hand-carried transcript will not be accepted. In addition, any foreign transcript that is not accompanied by an English translation or does not contain a grade conversion scale showing U.S. grade equivalents will be sent to a professional credential-evaluation service at the expense of the student.

Special Courses

CHIN 101/102 *Intensive Introduction to Chinese I and II* Six Credit Hours
Prerequisite: FREN, GERM, or SPAN 202

Development of basic practical communication through standard cognitive-code methodology. Daily study and practice of phonetics, orthography, vocabulary, grammar, syntax, idiom. Students will learn to transcribe in Pinyin and pronounce all syllables of the phonetic system of Modern Standard Chinese (Mandarin in Beijing dialect) and to recognize and write ca. 500 characters.

JAPN 101/102 *Intensive Introduction to Japanese I and II* Six Credit Hours
Prerequisite: FREN, GERM, or SPAN 202

Development of basic practical communication through standard cognitive-code methodology. Daily study and practice of phonetics, orthography, vocabulary, grammar, syntax, idiom. Students will learn to pronounce, read, and write the two syllabaries (Hirgana and Katakana) and ca. 200 Chinese characters (Kanji).

KORE 101/102 *Intensive Introduction to Korean I and II* Six Credit Hours
Prerequisite: FREN, GERM, or SPAN 202

Development of basic practical communication through standard cognitive-code methodology. Daily study and practice of phonetics, orthography, vocabulary, grammar, syntax, idiom. Students will learn to pronounce, read, and write the Hangul phonetic alphabet.

MLNG 410 *European Literary Movements, 12th Century to 1789* Three Credit Hours

An extensive, in-depth survey of influential literary movements on the Continent, beginning with the High Middle Ages and early Italian Renaissance, continuing through the late Renaissance, the Golden Age in Spain, the Classical Age, up to the end of the Age of Enlightenment. While the focus of the course will be on major writers and representative works of each period (e.g., *La Chanson de Roland*, Bocaccio, Cervantes, Racine, Rousseau, Goethe), the significant intercultural borrowings and literary and artistic cross-fertilization among the intelligentsia of France, Germany, Italy, and Spain will be studied and put in their proper sociological contexts. No prerequisite.

MLNG 420 *European Literary Movements, 1789-Present* Three Credit Hours

This course begins at the dawn of the Romantic movement on the Continent and continues through the important movements of Realism, Naturalism, Symbolism, Surrealism, and Existentialism. Significant works of writers such as Hugo, Flaubert, Zola, Galdós, Rilke, Mann, Proust, D'Annunzio, Pirandello, Sartre, and Hesse, among others, will be studied against the background of their times. No prerequisite.

LING 300 *Introduction to Linguistics* Three Credit Hours

Open to all students.

A survey of the history of languages and linguistics and a study of the components of human speech: phonetics, phonology, morphology; grammar, syntax, semantics; semiology, writing, literature. No prerequisite.

Language and literature courses numbered 300 and above in a given language have, unless otherwise stated, 202 or 204 in that language as a prerequisite.

French Language and Literature Course Descriptions

FREN 101 *Elementary French Communication I* Three Credit Hours

Basic functional communication on daily activities and immediate environment in the present. Emphasis on understanding, speaking, reading, and writing simple French; pronunciation; and vocabulary expansion. Cross-cultural similarities and differences stressed. Course conducted primarily in French. *Language laboratory required.*

FREN 102 *Elementary French Communication II* Three Credit Hours

Prerequisite: FREN 101 or placement

Continued development of basic communication skills: understanding, speaking, reading, and writing in increasingly more complex situations, including pronouns, descriptions, and actions in the past and future, and conjectures. Cross-cultural similarities and differences also studied. Course conducted primarily in French. *Language laboratory required.*

FREN 201 *Intermediate French Communication* Three Credit Hours

Prerequisite: FREN 102 or placement

Functional use of French in different sociocultural contexts. Extensive oral and written practice with vocabulary and structures vital to expressing increasingly complex ideas. Course conducted in French. *Language laboratory required.*

FREN 202 *French Reading, Conversation, and Composition* Three Credit Hours

Prerequisite: FREN 201 or placement

Systematic development of reading and writing skills through cultural and literary texts. Oral communication skills development through discussions of readings and audiovisual material. Course conducted in French.

FREN 203 *Intermediate French Composition and Conversation* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor

An intensive, systematic study of grammar and development of speaking and writing skills through readings, discussions, and compositions. May be taken in lieu of FREN 201. Offered only during summer program in Europe.

FREN 204 *Intermediate French Culture* Three Credit Hours

Prerequisite: FREN 102 (or equivalent) and permission of instructor

Participation in cultural activities (excursions, visits to museums, theatrical performances, movies, etc.) required. Weekly journal of cultural and cross-cultural experiences. May be taken in lieu of FREN 202. Offered only during summer program in Europe.

FREN 301 *Advanced French Conversation* Three Credit Hours

Development of skill and ease in speaking correct, idiomatic French at an advanced level. Audio and video cassettes used for aural comprehension. Pronunciation exercises. Not open to students with native-level proficiency, but required of all French majors and minors.

FREN 302 *Advanced French Compositio*n Three Credit Hours

Detailed study, analysis, and practice of written French based upon selected texts. Study of grammar, syntax, and vocabulary as necessary to achieve coherent, idiomatic compositions related to the readings. Required of all French majors and minors.

FREN 303 *French Civilization* Three Credit Hours

A broad survey of French culture (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to World War I.

FREN 304 *Contemporary French and Francophone Civilization* Three Credit Hours

A study of all aspects of French civilization in the twentieth century (social and cultural mores and values, art, industry, and economy) in France and throughout the Francophone world.

FREN 307 *Business French* Three Credit Hours

Prerequisite: FREN 202 or permission of instructor

Introduction to the language of economics, banking, commerce, correspondence, sales, import-export, transportation, and corporations in the French-speaking world.

FREN 390 *Special Topics in Contemporary French Culture* Three Credit Hours

Prerequisite: FREN 202 and permission of instructor

A survey of current trends in art, architecture, music, cuisine, film, and literature, as well as in popular culture, in France. Visits to museums, concerts, theater, etc. Weekly journal of cultural and cross-cultural experiences. Offered only during summer program in Europe.

FREN 391 *Special Topics in Contemporary French Usage* Three Credit Hours

A course designed to acquaint students with the French of today as a language in evolution; particular attention to current usage of slang, jargon, and neologisms. Offered only during summer program in Europe.

FREN 421 *French Literature of the Middle Ages and Renaissance* Three Credit Hours

A study of representative works composed in the Middle Ages and Renaissance in modern French translation.

FREN 422 *French Classicism and Enlightenment* Three Credit Hours

A study of the principal writers of the seventeenth and eighteenth centuries in France. Major figures: Molière, Corneille, Racine, Pascal, La Fontaine, La Bruyère, Voltaire, Diderot, Rousseau.

FREN 423 *French Literature of the Nineteenth Century* Three Credit Hours

A study of the works representative of Romanticism, Realism, Naturalism, and Symbolism, with special emphasis on developments in the novel and lyric poetry.

FREN 424 *French Literature of the Twentieth Century* Three Credit Hours

A study of the major writers and literary movements—Surrealism, Modernism, Existentialism, Theatre of the Absurd, Nouveau Roman—from the early 1900s through the twentieth century.

FREN 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

Investigation and analysis of the works of one notable French author or of some other literary, linguistic, or cultural topic. The significance of the topic studied to Francophone civilization and/or literature in general will be emphasized. This course may be repeated provided that the subtitle is not duplicated.

FREN 490 *Advanced Grammar, Syntax, and Translation* Three Credit Hours

Prerequisite: FREN 302 or permission of instructor

Development of linguistic skills necessary for fluent idiomatic writing in French, from colloquial to more sophisticated styles, including translation from English to French.

German Language and Literature Course Descriptions

GERM 101 *Elementary German I* Three Credit Hours

Introduction to vocabulary, grammar, syntax, idiom, and culture. Development of skills critical to foreign-language mastery: listening, speaking, reading, and writing. Course conducted primarily in German. Lab work required.

GERM 102 *Elementary German II* Three Credit Hours

Prerequisite: GERM 101 or placement

Progress in vocabulary, grammar, syntax, and idiom. Increased emphasis on student communication. Course conducted primarily in German. Lab work required.

GERM 201 *Intermediate German I* Three Credit Hours
Prerequisite: GERM 102 or placement

Completion of basic grammar and syntax. Increased emphasis on reading, idiomatic usage. Course conducted in German. Lab work required.

GERM 202 *Intermediate German II* Three Credit Hours
Prerequisite: GERM 201 or placement

Expansion and fine tuning of grammar. Literary texts serve as basis for discussion and substantial composition. Course conducted in German. Upon successful completion of the elementary and intermediate courses, students will be functional in a German-speaking country, i.e., able to converse socially, read newspapers and magazines, enjoy a movie, etc.

GERM 203 and *Intermediate German I Abroad* Three Credit Hours
GERM 204 *Intermediate German II Abroad* Each Semester
Prerequisite: GERM 102 (or equivalent) and permission of section chief

Taken in lieu of GERM 201 and 202. Intensive study of grammar, development of communicative skills while in residence in Germany, Austria, or Switzerland.

GERM 301 *Advanced German Conversation* Three Credit Hours
Prerequisite: GERM 202/204 with a grade of "C" or better or permission of the department head

Not open to students with native-level proficiency, but required of all German majors and minors. Expansion and practice of communicative skills in situational contexts from colloquial to formal. Extensive use of sound and video recordings. Student interviews and presentations.

GERM 302 *Advanced German Composition* Three Credit Hours
Prerequisite: GERM 202/204 with grade of "C" or better or permission of department head

Required of all German majors and minors. Practice in formal writing: reviews, essays, correspondence. Study of styles of writing in exemplary texts. Practical experience with translation.

GERM 303 *German Civilization and Culture* Three Credit Hours
Survey of civilization and culture up to 1945, with emphasis on values, thought, institutions, and art. Films, slides, recordings.

GERM 304 *Postwar German Society and Culture* Three Credit Hours
Study of society and culture since 1945, focusing on political division and reunification, economy, and art (particularly film).

GERM 305 *Events and Issues in German Media and Popular Culture* Three Credit Hours
An intensive study of events and issues as reflected in German media and popular culture. Newspapers, magazines, web sites, film, television, radio, music provide students with German perspective on major events in twentieth century world history. Topics will vary but may include WW I, National Socialism, the

Holocaust, the Vietnam War, the Cold War, Divided Germany, and the Environment.

GERM 307 *Business German* Three Credit Hours

Serves as a business elective. Introduction to the language of economics, corporations, commerce, and banking. Practical experience with business translation and correspondence. Preparation for the *Prüfung Wirtschaftsdeutsch International.*

GERM 390 *Special Topics in Language and Literature* Three Credit Hours

Prerequisite: GERM 202/204 and permission of section chief

Study of language and literature while in residence in Germany, Austria, or Switzerland. Emphasis on current usage in speech and print. Discussion and composition based on activities and readings.

GERM 391 *Special Topics in Landeskunde* Three Credit Hours

Prerequisite: GERM 202/204 and permission of section chief

Study of society and culture while in residence in Germany, Austria, or Switzerland. Emphasis on interaction with host community. Theater, concerts, films, excursions, and museum visits. Special projects tailored to student need and interest.

GERM 421 *German Literature up to the Reformation* Three Credit Hours

Survey of significant authors, works, genres, and movements from the earliest monastic texts through Luther's age, examined in their social and cultural context.

GERM 422 *German Literature from the Baroque to Classicism* Three Credit Hours

Survey of significant authors, works, and genres from the period of the baroque, the Enlightenment, *Sturm und Drang,* and classicism.

GERM 423 *German Literature of the Nineteenth Century* Three Credit Hours

Survey of significant authors, works, genres, and movements, with emphasis on romanticism, *Biedermeier, Junges Deutschland*, poetic realism, and naturalism.

GERM 424 *German Literature of the Twentieth Century* Three Credit Hours

Study of select authors, e.g., Schnitzler, Thomas Mann, Brecht, Grass, and Plenzdorf.

GERM 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

Study of a single author or select topic in Germanic philology or culture. Students may register for this course more than once if the topic has changed.

Spanish Language and Literature Course Description

SPAN 101 *Elementary Spanish Communication I* Three Credit Hours

Emphasis on practical, oral communication. Basic elements of speaking, listening, reading, and writing. Initial presentation of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 102 *Elementary Spanish Communication II* Three Credit Hours

Prerequisite: SPAN 101 or placement

Further emphasis on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 201 *Intermediate Spanish Communication* Three Credit Hours

Prerequisite: SPAN 102 or placement

Stress on oral communication. A continuation of speaking, listening, reading, and writing skills and study of Hispanic culture. Completion of the verb system. Mandatory practice in the language laboratory. Course conducted primarily in Spanish.

SPAN 202 *Spanish Conversation, Reading, and Composition* Three Credit Hours

Prerequisite: SPAN 201 or placement

Extensive oral and written communication based on readings and videos of Hispanic literature and culture. Course conducted primarily in Spanish.

SPAN 203 *Intermediate Spanish Composition and Conversation* Three Credit Hours

Prerequisite: SPAN 102 (or equivalent) and permission of instructor

Intensive course in oral and written Spanish; to be taken in lieu of SPAN 201. Offered only during Maymester or summer program in Spain or Spanish America.

SPAN 204 *Intermediate Hispanic Culture* Three Credit Hours

Prerequisite: SPAN 201 (or equivalent) and permission of instructor

Participation in cultural activities (excursions, visits to museums, theatrical performances, bullfights, etc.) required. Weekly journal of cultural and cross-cultural experiences. Taken in lieu of SPAN 202. Offered only during Maymester or summer program in Spain or Spanish America.

SPAN 301 *Advanced Spanish Conversation* Three Credit Hours

Conversational skills are developed through frequent discussions and group related activities, with an emphasis on oral proficiency. These skills will be further refined through frequent writing activities. Course conducted in Spanish. Not open to students with native-level proficiency, but required of all other Spanish majors and minors.

SPAN 302 *Advanced Spanish Composition* Three Credit Hours

An intense and complete overview of Spanish grammar including a review of all tenses and a thorough analysis of the subjunctive. These elements will be emphasized through frequent writing exercises, with the ultimate goal of producing grammatically correct Spanish. Course conducted in Spanish. Required of all Spanish majors and minors.

SPAN 303 *Readings in Spanish Civilization* Three Credit Hours

A broad survey of the culture of Spain (architecture, painting, sculpture, music, cuisine, etc.) and society from prehistoric times to the present. Use of audiovisual materials.

SPAN 304 *Readings in Spanish American Civilization* Three Credit Hours

A general survey of the culture of Spanish America from pre-Columbian times to the present (architecture, painting, sculpture, music, cuisine, etc., as well as social and political developments). Use of audiovisual materials.

SPAN 305 *Introduction to the Study of Hispanic Literature* Three Credit Hours

Prerequisites: Completion of SPAN 202 or 204 and SPAN 302

A preparatory course for students intending to pursue studies in Hispanic literature. Selected readings will provide the basis for stylistic and textual analysis and understanding of the structure of literary works. The historical development of genres and the technical vocabulary necessary for critical analysis will be included. Required of all Spanish majors and minors.

SPAN 307 *Business Spanish* Three Credit Hours

Introduction to the language and culture of economics, banking, commerce, sales, import-export, and corporations in Spain and Spanish America.

SPAN 308 *Spanish Business Correspondence* Three Credit Hours

An extensive overview and practice of written commercial communications in Spanish.

SPAN 310 *Survey of Spanish Peninsular Literature* Three Credit Hours

Prerequisite: SPAN 302

A broad survey of literature in Spain from the premedieval period through major movements and representative authors to contemporary Spanish letters.

SPAN 320 *Survey of Spanish American Literature* Three Credit Hours

Prerequisite: SPAN 302

A broad survey of major works of Spanish America from the pre-Columbian period through major movements and representative authors to contemporary literature.

SPAN 420 *Spanish Literature of the Middle Ages and Renaissance* Three Credit Hours

Prerequisite: SPAN 302

The history and interpretation of the first works in the Spanish tradition. The literary history of the period will be surveyed and illustrated with selected texts.

SPAN 421 *The Golden Age of Spanish Literature* Three Credit Hours

Prerequisite: SPAN 302

A study of the theatre, poetry, and novel of the age of Lope de Vega, Calderón de la Barca, and Miguel de Cervantes, including consideration of the Mystics and the *auto sacramental.*

SPAN 423 *Eighteenth & Nineteenth Century Literature of Spain* Three Credit Hours

Prerequisite: SPAN 302

A survey of major literary trends from Neoclassicism to the Generation of '98 with consideration of authors such as Moratín, El Duque de Rivas, Bécquer, Larra, Bazán, Galdós, and Unamuno. Corresponding Spanish history will be presented as part of textual interpretation.

SPAN 424 *Twentieth Century Literature of Spain* Three Credit Hours

Prerequisite: SPAN 302

Literary trends and authors since the turn of the century. A survey of the avant-garde movements and post-civil war writers with consideration of such authors as Ortega y Gasset, Larrea, Lorca, Aleixandre, Celaya, Laforet and Cela.

SPAN 425 *Contemporary Spanish American Fiction* Three Credit Hours

Prerequisite: SPAN 302

In-depth study of the major works of Spanish American fiction by the most important twentieth-century writers. Consideration will be given to Borges, Cortázar, Rulfo, Fuentes, and García Márquez.

SPAN 426 *Contemporary Spanish American Poetry* Three Credit Hours

Prerequisite: SPAN 302

A study of selected Spanish American poets from Modernism to the contemporary period. The course will consider authors such as Dario, Mistral, Vallejo, Neruda, and Octavio Paz.

SPAN 450 *Undergraduate Seminar: Studies in Special Topics* Three Credit Hours

A comprehensive study and interpretation of a major author, work, period, movement—or combination thereof—from Spain or Spanish America. This course may be repeated provided that the subtitle is not duplicated.

Directed Individual Study

Directed Individual Study courses enable students with special interests, suitable preparation, and high academic standing to receive instruction and guidance in selected subjects which are not otherwise treated in the department's regularly scheduled courses of instruction. Directed Individual Study courses may not be repeated and are open only to juniors and seniors with the assent of the instructor and the permission of the department head.

FREN 341 and FREN 342	*French Language* *and Literature* (junior year)	Three Credit Hours Each Semester
FREN 441 and FREN 442	*French Language* *and Literature* (senior year)	Three Credit Hours Each Semester
GERM 341 and GERM 342	*German Language* *and Literature* (junior year)	Three Credit Hours Each Semester
GERM 441 and GERM 442	*German Language* *and Literature* (senior year)	Three Credit Hours Each Semester
SPAN 341 and SPAN 342	*Spanish Language* *and Literature* (junior year)	Three Credit Hours Each Semester
SPAN 441 and SPAN 442	*Spanish Langauge* *and Literature* (senior year)	Three Credit Hours Each Semester

Department of Political Science and Criminal Justice

Department Head: Feurtado
Professors: Feurtado, Moreland, Steed
Associate Professors: Bloss, Mays
Assistant Professors: Burton, Kapeluck, McNamara, Porter
Visiting Professor: Tracy

The Department offers academic majors in political science and in criminal justice.

Each major affords students an opportunity to obtain a broad liberal arts education that enriches their lives and acquaints them with the rights and responsibilities of citizenship. The course of study for students majoring in either political science or criminal justice begins with a set of core courses to introduce the student to the discipline. Students then have the opportunity to select from a list of specialized electives in their area of concentration and to increase their understanding of their field by taking courses in the related disciplines of anthropology, economics, history, psychology, and sociology as well as General Electives from other departments. As the central element of a general education, both political science and criminal justice provide preparation for graduate education and for useful and satisfying careers.

Political Science Major: The course of study for students majoring in political science prescribes a set of core courses to introduce the student to the discipline. In addition, each major must select one of the following departmental subfields for specialization in the junior and senior years.

A. American Government and Politics.
B. International Politics and Military Affairs.
C. Pre-Law and Legal Studies.

The discipline of political science seeks to describe and to explain political phenomena, including both foreign and domestic political institutions, the political process, political behavior, and contemporary political issues. Political science also studies the relationships of individuals with their governments, including the rights and responsibilities of citizens. The major has especially strong appeal for those who anticipate careers in law and government, particularly in the Foreign Service and Department of State, intelligence agencies, and the military services of the US Army, US Navy, US Air Force, and US Coast Guard.

Criminal Justice Major: The course of study for students majoring in Criminal Justice prescribes a set of core courses to introduce the student to the discipline. In addition, students have the opportunity to select from three clusters of courses including advanced criminal justice course work, courses in American government and politics, and courses which provide a broader liberal arts perspective. The major is designed to offer opportunities for criminal justice education at the college level which will provide capable personnel to meet the needs of the professionalization movement in this region and in the country. Not a training or police academy program, the degree program offers a liberal arts approach which emphasizes social and natural sciences as well as humanities and professional activities. Students who major in criminal justice anticipate careers at the local, state, and national levels in such areas as law enforcement, juvenile justice, corrections, and probation and parole. The major also offers an excellent background for pre-law students through its courses in criminal law, evidence, courts, and criminal justice procedures and processes.

Students may double major in Political Science and in Criminal Justice except that a Political Science major in Subfield C (Pre-law and Legal Studies) is not approved in combination with a Criminal Justice major.

Other Programs and Courses: The Department offers five minors: Non Western Studies, American Politics, International and Military Affairs, Law and Legal Studies, and Criminal Justice. The Department also participates in the interdisciplinary minors in Leadership Studies and East Asian Studies. For a full description of the first, please refer to the entry in this catalog in the Department of English section; refer to the Department of Modern Languages section for the minor in East Asian Studies. The Department also offers three courses (PSCI 102: American Government, SOCI 201: Introduction to Sociology, and ANTH 202: Cultural Anthropology) which may satisfy the core curriculum's social science requirement in many majors.

Major Requirements: B.A. in Political Science

The political science major consists of fourteen courses (42 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for six elective courses which students may use as they choose. The complete course of study is presented in the Courses of Study section of this catalog.

The fourteen courses required for a major in political science are distributed as follows: six core courses, five subfield courses, and three political science departmental electives.

First, each student is required to complete a specified core of six courses:

PSCI 101	Introduction to Political Science
PSCI 102	American National Government
PSCI 231	International Politics
PSCI 232	Comparative Politics
PSCI 392	Political Theory
PSCI 462	Constitutional Law: Civil Rights and Liberties.

Second, no later than the beginning of the fall semester of the junior year, each political science major must select one of the subfields for course concentration during the junior and senior years. The three subfields are **Subfield A: American Government and Politics, Subfield B: International Politics and Military Affairs, and Subfield C: Pre-Law and Legal Studies.** Majors must complete selected courses within one subfield of their choice. Three of these courses are specifically required; the remaining courses must be selected from the list of subfield electives as indicated below.

Third, to complete the required fourteen courses for the political science major, each student must also complete three additional political science courses (PSCI), two of which must be chosen from the American government and politics subfield (PSCI 301, PSCI 302, PSCI 303, PSCI 304, PSCI 305, PSCI 306, PSCI 307, PSCI 308, PSCI 309, PSCI 393, PSCI 396, PSCI 401, PSCI 402, PSCI 403, PSCI 431, PSCI 499). The third must be an additional political science elective (any course with a PSCI prefix).

All courses within a subfield are open both to majors in other departments and to political science majors who are concentrating in one of the other two subfields. Subfield requirements and electives are listed below.

Subfield A: American Government and Politics

JUNIOR YEAR

First Semester	**Second Semester**
American Parties & Politics, PSCI 301	PSCI 302 or PSCI 306
History Elective	History Elective
American Politics Elective	Political Theory, PSCI 392
Biology, Chemistry, or Physics	Biology, Chemistry, or Physics
BADM 201	Elective
ROTC	ROTC

SENIOR YEAR

First Semester	**Second Semester**
Pol. Issues & Public Policy, PSCI 401	American Politics Elective
American Politics Elective	Departmental Elective

Constitutional Law, PSCI 462	Departmental Elective
Elective	Elective
Elective	Elective
ROTC	ROTC

Required:

PSCI 301	American Parties and Politics
PSCI 302	Urban Politics or PSCI 306: Legislative Process
PSCI 401	Political Issues and Public Policy

Subfield electives (those students selecting this subfield must complete at least three electives chosen from the following):

PSCI 303	State and Local Government
PSCI 304	American Political Thought
PSCI 305	American Presidency
PSCI 306	Legislative Process
PSCI 307	Southern Politics
PSCI 308	Public Opinion
PSCI 309	Religion and Politics
PSCI 310	Domestic Terrorism
PSCI 371	Leadership in Politics
PSCI 393	Research Methods in Political Science
PSCI 396	Politics and the Media
PSCI 402	Politics of Bureaucracy
PSCI 403	Topics in American Government and Politics
PSCI 431	American Foreign Relations
PSCI 461	Issues in Contemporary Constitutional Law
PSCI 498	Independent Study
PSCI 499	Internship

Subfield B: International Politics and Military Affairs

JUNIOR YEAR

First Semester	**Second Semester**
PSCI 333 or PSCI 343	Nat. Security Pol., PSCI 332
History Elective	History Elective
American Politics Elective	Political Theory, PSCI 392
Biology, Chemistry, or Physics	Biology, Chemistry, or Physics
BADM 201	Elective
ROTC	ROTC

SENIOR YEAR

First Semester	**Second Semester**
Am. Foreign Relations, PSCI 431	Int. Politics Elective
American Politics Elective	Int. Politics Area Elective
Constitutional Law, PSCI 462	Departmental Elective
Elective	Elective
Elective	Elective
ROTC	ROTC

Required:

PSCI 333	International Organization or PSCI 343 Introduction to Non-Western Studies
PSCI 332	National Security Policy
PSCI 431	American Foreign Policy

Subfield electives (those selecting this subfield must complete at least two electives chosen from any of the American government and politics courses listed above plus two subfield electives chosen from the following, one of which must be an area course):

PSCI 310	Domestic Terrorism
PSCI 332	International Law
PSCI 333	International Organization
PSCI 334	Problems in International Law & Organization
PSCI 335	Comparative Foreign and Defense Policies
PSCI 336	Russia and the Commonwealth of Independent States
PSCI 337	East Asian Affairs
PSCI 338	Southeast Asian Affairs
PSCI 339	Middle Eastern Affairs
PSCI 340	Latin American Affairs
PSCI 341	African Affairs
PSCI 342	International Terrorism
PSCI 343	Introduction to Non-Western Studies
PSCI 344	European Affairs
PSCI 345	South Asian Affairs
PSCI 346	Multinational Peacekeeping
PSCI 348	Theories of Peace and War
PSCI 371	Leadership in Politics
PSCI 393	Research Methods in Political Science
PSCI 402	Politics of Bureaucracy
PSCI 443	Topics in International Politics
PSCI 498	Independent Study
PSCI 499	Internship

Subfield C: Pre-Law and Legal Studies

JUNIOR YEAR

First Semester	**Second Semester**
Intro to Criminal Justice, CRMJ 201	Law & Legal Process, PSCI 361
History Elective	History Elective
American Politics Elective	Political Theory, PSCI 392
Biology, Chemistry, or Physics	Biology, Chemistry, or Physics
BADM 201	Elective
ROTC	ROTC

SENIOR YEAR

First Semester	**Second Semester**
Constitutional Law, PSCI 462	Constitutional Law, PSCI 461
Pre-Law & Legal Studies Elective	Pre-Law & Legal Studies Elective
American Politics Elective	Departmental Elective
Elective	Elective
Elective	Elective
ROTC	ROTC

Required:

PSCI 361	Law and Legal Process
CRMJ 201	Introduction to Criminal Justice
PSCI 461	Issues in Contemporary Constitutional Law

Subfield electives (those selecting this subfield must complete at least two electives chosen from any of the American government and politics courses listed above plus two subfield electives chosen from the following):

PSCI 304	American Political Thought
PSCI 331	International Law
PSCI 393	Research Methods in Political Science
PSCI 402	Politics of Bureaucracy
PSCI 463	Topics in Law and Legal Studies
PSCI 498	Senior Research Project/Independent Study
PSCI 499	Internship
SOCI 201	Introduction to Sociology
CRMJ 202	Criminology
ENGL 411	Writing in the Professions
BADM 211	Accounting Principles and Practice
CRMJ 465	Special Topics in Criminal Justice
CRMJ 371	Criminal Law
CRMJ 373	Criminal Evidence

Minor in Non-Western Studies

Objectives:

The minor in non-Western studies is designed to allow students to develop a multidisciplinary, directed course of study through which they will attain a well-rounded understanding of a regional (Asia, Middle East, Africa, Latin America) or functional (e.g., development, revolution) area.

Competencies, Knowledge, or Skills to be Achieved:

In addition to the above, students will have an opportunity to develop keener insight and appreciation for diversity. The current curriculum is highly Eurocentric; this program will not only allow minority students to learn about their origins, but will (perhaps more importantly) engage Euro-American students to widen their horizons. In addition, this specialization will prove especially beneficial for the student pursuing a graduate degree in such areas as International Business, International Studies, Comparative Literature, History, etc. It will also distinguish students entering military or other government service.

No students are excluded from pursuing this minor. A student may not, however, use any course toward satisfying both the minor requirement and a specific or area requirement in his or her major.

Structure of the Minor:

1. *Required Courses*

   Foreign language through the 202 level (equivalent to 12 hours); Introduction to Non-Western Studies (PSCI 343) (3 hours)

2. *Electives*

   Four of the following from at least two disciplines:

   HIST 417
   HIST 425
   HIST 450
   HIST 451
   HIST 452
   HIST 462
   HIST 463
   HIST 489

   PSCI 335
   PSCI 337
   PSCI 338
   PSCI 339
   PSCI 340
   PSCI 341
   PSCI 342
   PSCI 345
   PSCI 433

   GEOG 311

   LANG 303*
   LANG 304*
   LANG 320*

   ANTH 202

   BADM 412

   Other: relevant Independent Study in any discipline; approved Senior Research Project or Internship; any relevant course taught by departments as a special topic; any relevant literature and/or language course (Asian, African, Latin American, or Middle East).

   *FREN, GERM, RUSS, or SPAN as appropriate.

3. *Projected Course of Study:*

   Students will be required to file a declaration of intent with the director of the program by the end of the first semester of the junior year. This declaration will outline the projected course of study and will be approved by the director. In addition to approving this projected course of study, the director will assume responsibility for publicizing the program and for monitoring each student's progress toward fulfilling the requirements of the minor; in this latter capacity, the director will be responsible for verifying that the student has met the requirements of the minor and for notifying the Records Office to that effect.

Total Credit Hours Required—15, at least 3 of which must be completed at The Citadel (plus 12 of language)

Minor in American Politics: Democracy and the Political Process

Objectives:

This minor is designed to provide students with an understanding of the institutions and processes involved in the formulation of demands made on the American political system and the responsiveness of the authorities in the system to these demands.

Competencies, Knowledge, or Skills to be Achieved:

Through the study of topics such as the formulation and expression of public opinion, the effectiveness with which political parties create and maintain broad-based governing coalitions, the structures and operations of basic governing institutions, and the nature of the policy process, students should develop a solid grasp of the linkages between public opinion, groups, parties, institutions, and public policy. Since democratic theory assumes the existence of this linkage, students completing the minor should have a solid understanding of the practice of American democracy. Since a number of courses in the minor require the quantitative analysis of data, students will also deepen their knowledge of the methods of the social sciences. The requirement that papers and reports be submitted should enhance mastery of the English language.

This minor is not approved for students majoring in political science

Structure of the Minor:

1. *Required Courses*
   PSCI 301 American Parties and Politics
   PSCI 308 Public Opinion
   PSCI 305 American Presidency or PSCI 306 Legislative Process
2. *Electives (choose two)*
   PSCI 304 American Political Thought
   PSCI 305 American Presidency or PSCI 306 Legislative Process
   PSCI 307 Southern Politics
   PSCI 309 Religion and Politics

PSCI 310	Domestic Terrorism
PSCI 371	Leadership in Politics
PSCI 393	Research Methods in Political Science
PSCI 396	Politics and the Media
PSCI 401	Political Issues and Public Policy
PSCI 403	Topics in American Government and Politics
PSCI 431	American Foreign Relations
PSCI 499	Internship

Total Credit Hours Required—15, at least 3 of which must be completed at The Citadel

Minor in International and Military Affairs

Objectives:

This minor is designed to introduce students to the field of international and military affairs and provide them with a greater understanding of the international environment in which individuals, states, and organizations operate. The minor will include an introduction to international and comparative politics as well as at least one regional area of the international system. The program's flexibility allows students to expand their introduction to this topic through the completion of two electives in regional studies, macro-based political views of the international system, international economics, national security, foreign policy, or some combination of these categories.

Competence, Knowledge, or Skills to be Achieved:

The minor will require students to acquire and apply critical analytical skills in order to achieve an understanding of the international system and its complex array of components. The required courses in international and comparative politics require students to consider the functions and components of the international system as well as the ideological and political differences between individuals, states, and organizations which comprise this system. A regional course requirement presents students with a more detailed analysis of how other states govern themselves and operate within the international system. The electives allow students to apply their newly developed tools for international and military affairs analysis to other geographical regions, macro-based political issues such as international law or organization, or international economics. Critical thinking and systematic analysis in the required courses and electives will present students with these tools for further dissection of the international system, allow a greater appreciation for the complex world we live in, and prepare them for military, political, legal, or business careers in an ever-increasingly interdependent world.

This minor is not approved for students majoring in political science.

Structure of the Minor:

1. *Required Courses*

PSCI 231	International Politics
PSCI 232	Comparative Politics

Any regional course

2. *Electives (choose two)*

BADM 320	International Business
BADM 412	International Economics
PSCI 331	Introduction to International Law
PSCI 332	National Security Policy
PSCI 333	International Organization
PSCI 334	Problems in International Law and Organization
PSCI 335	Comparative and Defense Policies
*PSCI 336	Russia and the Commonwealth of Independent States
*PSCI 337	East Asian Affairs
*PSCI 338	Southeast Asian Affairs
*PSCI 339	Middle East Affairs
*PSCI 340	Latin American Affairs
*PSCI 341	African Affairs
PSCI 342	International Terrorism
PSCI 343	Introduction to Non-Western Studies
PSCI 344	European Affairs
PSCI 345	South Asian Affairs
PSCI 346	Multinational Peacekeeping
PSCI 348	Theories of Peace and War
PSCI 431	American Foreign Relations
PSCI 443	Topics in International Politics
PSCI 499	Internship

*Regional Course

Total Hours Required—15, of which 3 must be completed at The Citadel

Minor in Law and Legal Studies

Objectives:

This minor is designed to introduce students in a systematic way to the American systems of civil and criminal justice; to provide an introduction to law and the legal system for students who are considering careers in law or criminal justice; and to provide an opportunity for students to undertake advanced law-related courses, grounded in a basic understanding of law and the legal system.

Competencies, Knowledge, or Skills to be Achieved:

The minor introduces students to legal reasoning, to case analysis, and to legal terms and citations as well as theoretocal matters. Aside from an understanding of the nature of the legal process, the minor seeks to develop each student's capabilities for critical thinking and systematic analysis.

This minor is not approved for students majoring in political science or criminal justice.

Structure of the Minor:

1. *Required Courses*

CRMJ 201	Introduction to Criminal Justice
PSCI 361	Law and Legal Process
PSCI 462	Constitutional Law: Civil Rights and Liberties

2. *Electives (choose two)*

PSCI 331	International Law
PSCI 392	Political Theory
PSCI 402	Politics of Bureaucracy
PSCI 461	Issues in Contemporary Constitutional Law
PSCI 463	Topics in Law and Legal Studies
PSCI 499	Internship
CRMJ 371	Criminal Law
CRMJ 373	Criminal Evidence
SOCI 201	Introduction to Sociology
SOCI 320	Criminology
ENGL 411	Writing in the Professions

Total Credit Hours Required—15, of which 3 must be completed at The Citadel
Minor is not approved for students majoring in criminal justice.

Major Requirements: B.A. in Criminal Justice

The criminal justice major consists of fifteen courses (45 credit hours) within the department. In addition, the major establishes certain distributional requirements outside the department, and it provides for six elective courses which students may use as they choose. The complete course of study is presented in the Courses of Study section of this catalog.

The criminal justice core curriculum will consist of four courses (12 credit hours) to broadly introduce the student to the field. These core courses for the major are as follows:

Required Courses

CRMJ 201	Introduction to Criminal Justice
CRMJ 202	Criminology
CRMJ 370	Police Systems and Practices
CRMJ 380	Corrections

Beyond the core courses, each student majoring in criminal justice must choose 11 additional courses (33 credit hours) to be distributed among three clusters of courses, for a total of 45 credit hours. Courses have been clustered as follows: Cluster A (5 courses, 15 credit hours) includes advanced criminal justice coursework; Cluster B (3 courses, 9 credit hours) includes criminal-justice-related/collateral courses; and Cluster C (3 courses, 9 credit hours) includes courses to provide for each student a broader, liberal arts perspective. (General Electives, which may also be selected from our criminal justice offerings, may take the total higher at the student's discretion.) The specific courses offered in each cluster are as follows:

Cluster A (5 courses, 15 credit hours):

CRMJ 371	Criminal Law
CRMJ 372	Critical Issues in Law Enforcement
CRMJ 373	Criminal Evidence
CRMJ 375	Criminal Justice Agency Administration
CRMJ 381	Organized Crime
CRMJ 382	Drugs and Crime
CRMJ 383	Comparative Criminal Justice Systems
CRMJ 385	Juvenile Justice
CRMJ 386	Research Methods in Criminal Justice
CRMJ 387	Criminal Investigation
CRMJ 388	White Collar Crime
CRMJ 390	Victimology
CRMJ 391	Criminalistics
CRMJ 392	Computer Crime
CRMJ 465	Special Topics in Criminal Justice
CRMJ 498	Independent Study
CRMJ 499	Internship

Cluster B (3 courses, 9 credit hours):

PSCI 302	Urban Politics
PSCI 310	Domestic Terrorism
PSCI 392	Political Theory
PSCI 342	International Terrorism
PSCI 361	Law and Legal Process
PSCI 401	Public Policy Process
PSCI 461	Issues in Contemporary Constitutional Law
PSCI 462	Constitutional Law: Civil Rights and Liberties
SOCI 201	Introduction to Sociology
SOCI 301	Cults

Cluster C (3 courses, 9 credit hours):

To be chosen from among 40 other courses offered by the department (courses with a PSCI prefix, PSCI 231-PSCI 499).

Minor in Criminal Justice

Objectives:

This minor is designed to provide students with an introduction to criminal justice in the United States, including theories of criminality, critical procedures in the criminal justice process, and the principal actors and institutions which interact with each other.

Competencies, Knowledge, or Skills to be Achieved:

The minor introduces students to basic concepts and terms in criminal justice as well as to the theory and practice of the criminal justice process. In addition, the minor seeks to develop each student's capabilities for critical thinking and systematic analysis in relation to contemporary criminal justice issues.

The minor is not approved for students majoring in Criminal Justice or for students majoring in Political Science whose subfield is Pre-Law and Legal Studies.

Structure of the Minor:

1. *Required Courses*

CRMJ 201	Introduction to Criminal Justice
CRMJ 202	Criminology
CRMJ 370	Police Systems and Practices
CRMJ 380	Corrections

2. *Electives (choose one)*

CRMJ 371	Criminal Law
CRMJ 372	Critical Issues in Law Enforcement
CRMJ 373	Criminal Evidence
CRMJ 375	Criminal Justice Agency Administration
CRMJ 381	Organized Crime
CRMJ 382	Drugs and Crime
CRMJ 383	Comparative Criminal Justice Systems
CRMJ 385	Juvenile Justice
CRMJ 386	Research Methods in Criminal Justice
CRMJ 387	Criminal Investigation
CRMJ 388	White Collar Crime
CRMJ 390	Victimology
CRMJ 391	Criminalistics
CRMJ 392	Computer Crime
CRMJ 465	Special Topics in Criminal Justice
CRMJ 498	Independent Study
CRMJ 499	Internship

Political Science Course Descriptions

PSCI 101 *Introduction to Political Science* Three Credit Hours

Required of political science freshmen.

An introduction of politics in general and the discipline of political science in particular. Attention will be given to the basic questions and methods of political science with introductions to the subfields of the discipline.

PSCI 102 *American National Government* Three Credit Hours

Required of political science freshmen. Satisfies Social Science Core Requirement for non political science majors.

A study of the American constitution background, the rights and liberties of persons, public opinion, voting behavior, political parties, interest groups, and the organization and roles of the presidency, the Congress, and the national judiciary in policy formation and implementation.

PSCI 231 *International Politics* Three Credit Hours

Required of political science sophomores.

An analysis of the international system, of the nation-state, the role of power in international politics, and the goals and instruments of a nation's foreign policy.

PSCI 232 *Comparative Politics* Three Credit Hours

Required of political science sophomores.

An analysis of the various political systems in terms of institutions, structure, and function. Emphasis on the development of common criteria for the evaluation and comparison of these divergent systems.

PSCI 301 *American Parties and Politics* Three Credit Hours

An analysis of the dynamics of American politics, with particular emphasis upon the factors entering into the formulation of public opinion, the role of interest groups, and the nature and operation of the party system.

PSCI 302 *Urban Politics* Three Credit Hours

A study of mass participation in urban political affairs, political parties on local level, the municipal reform movement, and the alternative approaches to the study of local political systems. Emphasis placed on the problems of local government in metropolitan areas.

PSCI 303 *State and Local Government* Three Credit Hours

A study of the role of the states in the American constitutional system, the institutional organization of state governments, and the relationships both between the states and the national government and among the various levels of state government.

PSCI 304 *American Political Thought* Three Credit Hours

A study of the basic political ideas which have developed in response to American constitutional, social, and economic conditions.

PSCI 305 *American Presidency* Three Credit Hours

A study of the modern presidency with attention to its origin and its historical and constitutional development. Emphasis placed on the examination of the various roles and functions of the president and on an analysis of presidents in action.

PSCI 306 *Legislative Process* Three Credit Hours
A study of the organizations and procedures of a legislative body with attention to its role in policy formation and its relationships with other parts as a political and governmental system.

PSCI 307 *Southern Politics* Three Credit Hours
A study of politics in the South in both regional and national contexts. Attention given to the politics of individual states and to an analysis of regional developments in such areas as race relations, political behavior, and party competition.

PSCI 308 *Public Opinion and Political Behavior* Three Credit Hours
A systematic analysis of political attitudes and behavior in relation to techniques of opinion survey design and analysis, voting behavior, and mechanisms for influencing options.

PSCI 310 *Domestic Terrorism* Three Credit Hours
A survey of violent, political extremism in the United States and the social and political forces that legitimize their activities. Issues addressed include the role of the Ku Klux Klan as a recruitment pool, the legal context for law enforcement work against domestic terrorism, the role of private domestic organizations such as the Southern Poverty Law Center and Bnai Brith in identifying and monitoring violent organizations, and the internationalization of violent ideology via the internet.

PSCI 331 *International Law* Three Credit Hours
A survey of international law as developed through treaties, customs, usages, and decisions of national and international tribunals.

PSCI 332 *National Security Policy* Three Credit Hours
An examination of the components of United States security policy. Consideration given to factors, both internal and external, affecting national security.

PSCI 333 *International Organization* Three Credit Hours
A survey of the development and functions of international organizations, including the League of Nations, the United Nations, and other international agencies seeking to promote harmony among nations.

PSCI 335 *Comparative Foreign and Defense Policies* Three Credit Hours
A comparison and analysis of the foreign and defense policies of the Soviet Union, China, Britain, France, and selected Third World states, including an introduction to the defense strategies of the state and the relationship between foreign and defense policy in today's world.

PSCI 336 *Russia and the Commonwealth of Independent States* Three Credit Hours

A selective survey of the European and Asian countries that were republics of the former Soviet Union as well as the European nations that were members of the Soviet bloc.

PSCI 337 *East Asian Affairs* Three Credit Hours

A survey of China from 1911 to the present, with emphasis on the rise of communism in China, on the structure and operation of the Chinese People's Republic, and on contemporary Chinese foreign policy. As appropriate, Japan, the Koreas, and Taiwan will also be addressed.

PSCI 338 *Southeast Asian Affairs* Three Credit Hours

A study of the development of selected countries in the area with emphasis on the problems of transition, ideological orientations, and the importance of the area to the national interests and foreign policy of the United States.

PSCI 339 *Middle Eastern Affairs* Three Credit Hours

A survey of the Middle East with emphasis on the role of the area in the foreign policy of the United States.

PSCI 340 *Latin American Affairs* Three Credit Hours

A study of Latin America with emphasis on the traditional power elements and on the importance of the area to the foreign policy of the United States.

PSCI 341 *African Affairs* Three Credit Hours

An analysis of the politics and modernization of Africa with emphasis on the newly independent states of the continent with their political, cultural, demographic, and historical characteristics and on tribal factors influencing the process of modernization.

PSCI 342 *International Terrorism* Three Credit Hours

A study of international and transnational political violence, with some attention to the phenomenon of "state terrorism" (international repression) and its potential impact on the conduct of American foreign policy. Issues addressed include conceptualizing and defining terrorism, the structure of violent politics, the lessons and patterns from the history of contemporary political violence, State support for terrorism, and counterterrorism as a public policy problem.

PSCI 343 *Introduction to Non-Western Studies* Three Credit Hours

The core course for the non-Western studies minor, this course is a multidisciplinary introduction to the history and politics of the societies of Asia, Africa, and Latin America. Attention is addressed to their experiences with colonialism and confrontations with modernization as well as to their current international relations.

PSCI 344 *European Affairs* Three Credit Hours

An examination of politics and economics in selected Western and Eastern European states in the unified entity known as "Europe." Organizations such as the European Union and the North Atlantic Treaty Organization (and others) will also be addressed.

PSCI 345 *South Asian Affairs* Three Credit Hours

A study of key countries in the region: India, Pakistan, Nepal, Afghanistan, Sri Lanka, with an emphasis on issues of development and security concerns such as nuclear weapons development, territorial disputes, communal conflicts, and other forms of political violence. Attention is also paid to the great power aspirations of India and Pakistan and their relations with the United States.

PSCI 346 *Multinational Peacekeeping* Three Credit Hours

An introduction to the issues relating to the mandating, deployment, and maintenance of multinational peacekeeping operations of the United Nations and selected regional/subregional organizations such as NATO, the OAU, ECOWAS, and Arab League. Includes an examination of the lessons learned from selected case study operations.

PSCI 348 *Theories of Peace and War* Three Credit Hours

An introduction to political and economic theories that explain the outbreak of war as well as the restoration of peace in the international system. Includes an application of theory in the context of the examination of selected case studies.

PSCI 361 *Law and Legal Process* Three Credit Hours

This course serves as a general introduction to law, lawyers, judges, and the civil legal process. Through lectures, assigned reading, and class seminars, the course wil broadly survey the American legal process, including the nature of law, judicial organization and the instruments of judicial power, civil proceedings and civil law, the work and training of lawyers, the recruitment of judges, and the nature of judicial decision-making. (Note: The criminal justice system is surveyed in CRMJ 201, Introduction to Criminal Justice.)

PSCI 371 *Leadership in Politics* Three Credit Hours

An introduction to the study and practice of political leadership to include necessary concepts and tools for an understanding of the elements of causation, constraint, and consequences in relation to leadership responses to challenges both inside and outside political institutions. Students will be introduced to interdisciplinary, cross-cultural, and comparative studies in order to understand the dynamic interplay of moral and rational calculations in relation to political strategy and advantage in contemporary society.

PSCI 392 *Political Theory* Three Credit Hours

Required of political science juniors.

Major theoretical writing from the ancient Greeks to the present day; emphasis on a comparison of ideas and on the relationships between theories and contemporary problems.

PSCI 393 *Research Methods in Political Science* Three Credit Hours

May be used as a subfield elective.

An examination of methods in the scientific study of political phenomena with emphasis given to the systematic study of politics and contemporary research problems in political science, including research design, data collection, data analysis, and computer applications.

PSCI 396 *Politics and the Media* Three Credit Hours

An examination of theories of communication, of the relationships between the various types of media and the political world, of the impacts of media on political decision-making, and of political themes found in films, television, literature, and other media forms. Specific topics include the nature and impact of television journalism, the context and political themes of selected films and novels, and the political roles performed by electronic and other forms of media.

PSCI 401 *Political Issues and Public Policy* Three Credit Hours

An introduction to political analysis through consideration of important contemporary American political issues as they relate to public policy; attention given to specific issues as well as the policy process (formulation, implementation, and evaluation of policy).

PSCI 402 *Politics of Bureaucracy and Public Administration* Three Credit Hours

An introduction to the role of administration in the governmental process with emphasis on the principles of administrative control, personnel, and fiscal management.

PSCI 403 *Topics in American Government and Politics* Three Credit Hours

Prerequisite: PSCI 102 (American National Government) or permission of course instructor.

Selected special topics or problems in the general area of American government and politics; offered periodically as the special interests of faculty and students permit.

PSCI 431 *American Foreign Relations* Three Credit Hours

A study of American foreign policy with emphasis on the institutions and processes in the making of foreign policy and on important problems and developments in the postwar years.

PSCI 433 *Topics in International Politics* Three Credit Hours

Prerequisite: PSCI 231 (International Politics) or permission of course instructor.

Selected special topics or problems in the general areas of international politics and military affairs; offered periodically as the special interests of faculty and students permit.

PSCI 461 *Issues in Contemporary Constitutional Law* Three Credit Hours

A study of selected cases and issues in U.S. constitutional law relating to contemporary controversies in American law and politics. The specific issues and cases studied may vary from semester to semester.

PSCI 462 *Constitutional Law: Civil Rights and Liberties* Three Credit Hours

Required of political science seniors.

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court with special attention directed to the Bill of Rights and the Thirteenth, Fourteenth, and Fifteenth Amendments.

PSCI 463 *Topics in Law and Legal Studies* Three Credit Hours

Prerequisite: PSCI 361 (Law and Legal Process) or permission of course instructor.

Selected special topics or problems in the general areas of public law and legal process; offered periodically as the special interests of faculty and students permit.

PSCI 492 *Topics in Political Philosophy and Theory* Three Credit Hours

Prerequisite: Political Theory, PSCI 392, or permission of the course instructor. Cannot be used as a subfield elective.

Selected special topics in the general area of political philosophy and theory; offered periodically as the interests of faculty and students permit.

PSCI 498 *Independent Study* Three Credit Hours

An independent research project resulting in a formal paper, this study must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project. Virtually any aspect of politics may be investigated. Especially recommended for those considering graduate or professional study.

PSCI 499 *Internship* Three Credit Hours

Prerequisite: permission of director of internships.

Internships with government and other agencies are offered to combine academic training with professional experience.

Criminal Justice Course Descriptions

CRMJ 201 *Introduction to Criminal Justice* Three Credit Hours

An introduction to the American criminal justice system, including the history and philosophy of law enforcement, the nature of crime in the United States, an introduction to the substantive criminal law, the nature and theory of the criminal justice process from arrest to corrections, and the roles of the major actors in that process (police, prosecutors, defense lawyers, judges, and corrections personnel).

CRMJ 202 *Criminology* Three Credit Hours

A study of the theories that seek to explain criminal behavior.

CRMJ 370 *Police Systems & Practices* Three Credit Hours

An introduction to law enforcement in the United States, including a brief history of policing, contemporary trends in criminality, and current issues facing police administrators. Attention will also be given to the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution and their implications for law enforcement.

CRMJ 371 *Criminal Law* Three Credit Hours

This course examines the origin and general principles of criminal law, principles of criminal liability, and elements of offenses.

CRMJ 372 *Critical Issues in Law Enforcement* Three Credit Hours

A critical analysis of contemporary issues in the law enforcement community, including the following: police stress, use of deadly force, police brutality, corruption, unionization, substance abuse by police officers, and other issues currently confronting law enforcement administrators and policymakers.

CRMJ 373 *Criminal Evidence* Three Credit Hours

An introduction to the types of evidence, collection of evidence, the chain of custody, and procedures relating to its introduction into judicial proceedings. Special attention is given to Fourth Amendment constitutional issues.

CRMJ 375 *Criminal Justice Agency Administration* Three Credit Hours

An introduction to criminal justice agency administration, including the following: the nature of criminal justice organizations, criminal justice personnel, group behavior in criminal justice organizations, and processes in criminal justice organizations.

CRMJ 380 *Corrections* Three Credit Hours

An introduction to corrections, correctional theory, and correction policy through the in-depth study of key areas in corrections, including correctional history, systems, policy, treatment programs, prison life, community-based corrections, probation and parole, and juvenile corrections.

CRMJ 381 *Organized Crime* Three Credit Hours

An examination and analysis of organized crime, of controversies surrounding the phenomenon, and of efforts aimed at its control. Attention will be given to defining organized crime, to its development, and to various theories that seek to explain its existence. Other topics include the activities that constitute the business of organized crime, the relationship between organized crime and curruption of governmental officials, the techniques used to control it, and the policy implications inherent in responses to organized crime.

CRMJ 382 *Drugs and Crime* Three Credit Hours

An examination of drug use as it relates to addiction, social problems, crime, enforcement, and treatment. Issues involving domestic and international drug supply, demand, trafficking, and interdiction are studied in the context of American drug policy.

CRMJ 383 *Comparative Criminal Justice Systems* Three Credit Hours

An examination of the ideology, structure, and justice process of various criminal justice systems in the United States, Europe, Asia, Africa, the Middle East, and Latin America. The comparative study involves analysis of diverse social control, legal, police, court, correction, and juvenile systems from representative justice approaches around the world, as well as normative values, practices, and ethics of justice system practitioners.

CRMJ 385 *Juvenile Justice* Three Credit Hours

An introduction to delinquency, to the juvenile justice process from intake to disposition, to trends in the treatment of juvenile offenders, and to juvenile justice reform (decriminalization, diversion, deinstitutionalization, and due process).

CRMJ 386 *Research Methods in Criminal Justice* Three Credit Hours

An introduction to research and to statistical methods, data bases, and computer applications in relation to the various fields of criminal justice. Special attention will be given to the problems associated with collection and analysis of criminal justice data.

CRMJ 387 *Criminal Investigation* Three Credit Hours

An examination of the criminal investigation process that combines forensic applications with investigative procedures. Crime scene preservation, management, evidence collection, and process are included in the examination of the investigative process. Interrogation and interviewing techniques, as well as physical evidence used to investigate specific types of offenses, are studied emphasizing effective case prosecution.

CRMJ 388 *White Collar Crime* Three Credit Hours

A study of "white collar" crime as a specific type of deviance. The course explores aspects of organizational, corporate, occupational, and governmental criminality and its detection, investigation, prosecution, and punishment.

CRMJ 390 *Victimology* Three Credit Hours

The scientific study of the extent, nature, and causes of criminal victimization, its consequences for the persons involved and the reactions to such victimization by society, in particular the police and the criminal justice system. Additional areas of examination include history of victimology, legal recourse for crime victims, and informal methods of addressing the needs of victims.

CRMJ 391 *Criminalistics* Three Credit Hours

The application of science to the investigation of crime. Designed to acquaint non-science majors with the philosophy and methodology of dealing with physical evidence in criminal investigation.

CRMJ 392 *Computer Crime* Three Credit Hours

An exploration of the current state of computer crime in the United States. The course traces the history of technological crime and identifies areas ripe for exploitation from technology savvy deviants. It also evaluates forensic practices and software in light of government legislation together with an analysis of emerging caselaw. The course also addresses guidelines for the development of computer forensic laboratories, the creation of computer crime task forces, and the search and seizure of electronic equipment.

CRMJ 465 *Special Topics in Criminal Justice* Three Credit Hours

An advanced seminar designed to examine in-depth selected topics in criminal justice.

CRMJ 498 *Independent Study* Three Credit Hours

An independent research project resulting in a formal paper, this study must be approved by the department head in consultation with an appropriate member of the faculty who will supervise the project. Virtually any aspect of criminal justice may be investigated. Especially recommended for those considering graduate or professional study.

CRMJ 499 *Internship* Three Credit Hours

Prerequisite: permission of director of internships.

Internships with government and other agencies are offered to combine academic training with professional experience.

Sociology Course Descriptions

SOCI 201 *Introduction to Sociology* Three Credit Hours

Satisfies the Core Social Science Requirement.

The scientific study of principles and comparisons in society and culture as these relate to population and communities, behavior systems, group collectivity and structure, social change, and institutions.

SOCI 202 *Social Problems* Three Credit Hours

Analysis of deviant behavior and those factors affecting the disorganization of small groups, complex organizations, and societies.

SOCI 301 *Cults* Three Credit Hours

An examination and analysis of alternative religious ideologies and groups. Attention will be given to defining and explaining cults, and a historical analysis of the phenomenon will be undertaken. A sociological examination of their impact on social norms and idealogies will be discussed; government reactions to cults and cult activities will also be addressed.

SOCI 304 *Minority Group Relations* Three Credit Hours

An examination of the substantive issues in the study of majority-minority group relations and social processes, and the cultural orientations which are associated with these issues.

Anthropology Course Descriptions

ANTH 201 *General Anthropology* Three Credit Hours

Man's biological and cultural origins as studied by physical anthropologists, archaeologists, and linguists.

ANTH 202 *Cultural Anthropology* Three Credit Hours

Satisifies the Core Social Science Requirement.

A comparative study of culture; habitat, technology, and economy; kinship and political organization; life cycles in primitive societies.

ANTH 307 *Introduction to Archaeology* Three Credit Hours

Open to juniors and seniors only.

An introduction to archaeology which looks at kinds of prehistoric data and the methods used to obtain and interpret it. Attention will center upon the lives of hunters, food producers, and early community settlements.

Department of Psychology

Department Head: Nida
Professors: Finch, Johnson, Lipovsky, Nida, Saylor
Associate Professors: DeRoma, Lassiter, Matthews, Politano
Assistant Professors: Allen

The major in psychology is designed around a broad liberal education whereby the learnings in the humanities and the sciences are integrated through an emphasis on the study of human behavior. Students in psychology develop an approach to learning based on empirical, objective methodology and statistical data analysis. These skills enhance critical thinking and permit theory construction and analysis. Students who graduate from this program are expected to have the knowledge base and the data analysis skills which would support graduate study in any of the specialty areas of psychology. They also should be well prepared for employment in positions which require understanding and motivating others. Examples of such employment areas include positions in personnel work, social service and mental health agencies, law enforcement, and sales.

The major program in psychology, which leads to the Bachelor of Arts degree, consists of 41 hours of course work in psychology, including PSYC 201, PSYC 202, PSYC 203, PSYC 301, PSYC 302, PSYC 304, PSYC 305, PSYC 306, PSYC 403, PSYC 402 or PSYC 404, PSYC 405, PSYC 407, and PSYC 410. To obtain a departmental recommendation for graduate study, the psychology major should also take PSYC 420. The department also offers elective courses to majors in other academic disciplines.

The Department of Psychology offers two graduate degree programs leading to the Ed.S. degree in School Psychology and the M.A. in Psychology: Clinical Counseling.

The Department of Psychology also sponsors the Psychology Club, which is open to all students interested in the study of human behavior regardless of their major. The club seeks to stimulate and maintain interest in scholarship and service and to promote closer social and intellectual association among students.

Psi Chi, the national honor society in Psychology, has a Citadel chapter open to undergraduate majors or minors with a 3.000 average who rank in the top third of their class. Psi Chi activities promote scholarship and research which prepare students for graduate school or other future endeavors in psychology.

Minor in Psychology

Objectives:

The Psychology Department recognizes that a major in psychology is not for everyone. However, students from many diverse fields and areas of interest (e.g., business administration, pre-law, pre-med, education, law enforcement, and the military) may benefit from more in-depth knowledge of the behavioral sciences. The minor in psychology is designed to allow students maximum flexibility in choosing courses to complement their current major.

Competencies, Knowledge or Skills to be Achieved:

Students minoring in psychology have the opportunity to enhance their critical thinking and problem-solving skills. Students will also develop the ability to review the scientific literature (using computer assisted technology) and communicate their findings through multiple media (oral presentations, written papers, and paper presentations at conferences). The curriculum for the minor has been arranged in such a fashion as to maximize the flexibility needed to match the student's individual career goals while at the same time ensuring a knowledge of the broad areas of psychology.

This minor is not approved for students majoring in psychology.

Structure of the Minor:

1. *Required Courses: (13 credit hours)*

   PSYC 203 Research Design in psychology*
   PSYC 301 Experimental Psychology
   *Students who have MATH 160, may substitute an additional psychology for Research Design (PSYC 203)
   One course from each grouping:

Cluster A	(PSYC 304)	Abnormal Psychology
	(PSYC 306)	Theories of Personality
Cluster B	(PSYC 403)	Learning and Motivation
	(PSYC 405)	History and Systems of Psychology
	(PSYC 302)	Physiological Psychology

2. *Electives: (6 credit hours)*

   Choose two:
   - (PSYC 402) Cognitive Psychology
   - (PSYC 404) Industrial/Organizational Psychology
   - (PSYC 202) Developmental Psychology
   - (PSYC 305) Social Psychology

Total Credit Hours Required—19, 3 of which must be completed at The Citadel.

Minor in Leadership Studies

The Department of Psychology also participates in the interdisciplinary minor in Leadership Studies. For a full description of this minor, please refer to the entry in this catalog in the Department of English section.

Psychology Course Descriptions

PSYC 201 *General Psychology* Three Credit Hours

This course meets the Social Science core requirement for non-psychology majors.

An introduction to the scientific study of behavior; emphasis upon experimental investigation of such fields as perception, motivation, learning, emotions, physiology, and personality.

PSYC 202 *Developmental Psychology* Three Credit Hours

A study of the development of the individual from prenatal to senescent stages, emphasizing growth in intelligence, motor behavior, perception, cognition, socialization, and emotion. Empirical findings and theoretical interpretations in the study of human behavior will be explored.

PSYC 203 *Research Design in Psychology* Three Credit Hours

Prerequisite: PSYC 201

An introduction to descriptive and inferential statistics used in psychological experimentation. Particular emphasis is placed upon hypothesis testing by means of the t-test and randomized designs of the analysis of variance.

PSYC 301 *Experimental Psychology: Methodology and Programming* Four Credit Hours

Prerequisites: PSYC 203

This course introduces students to the methods of scientific inquiry used by psychologists. Students will learn how to design studies and how to analyze data using computer programs. Emphasis will be placed on critical thinking and clear communication.

PSYC 302 *Physiological Psychology* Four Credit Hours

Prerequisites: PSYC 301

This course introduces students to the biological bases of behavior through classic didactics, laboratory experiences, and exemplary readings in physiological experimentation. Students will develop and demonstrate a range of research skills.

PSYC 304 *Abnormal Psychology* Three Credit Hours

Prerequisite: PSYC 201

A study of fundamental theory and research in the area of abnormal behavior. Emphasis is on symptoms, etiology, and treatment of psychopathology and behavior problems.

PSYC 305 *Social Psychology* Three Credit Hours
Prerequisite: PSYC 201

A study of the individual in relation to his social environment with special attention to group behavior, communication, conformity, leadership, aggression, and interpersonal attraction.

PSYC 306 *Theories of Personality* Three Credit Hours
Prerequisite: PSYC 201

A study of major contemporary theories of personality with special emphasis on the biological and psychological foundations and integrative aspects of personality.

PSYC 371 *Psychology of Leadership* Three Credit Hours

This course examines leadership theory and contemporary trends in leadership, organizational behavior, and the management of human resources as they are related to the emergence and effectiveness of leaders.

PSYC 402 *Cognitive Psychology* Three Credit Hours
Prerequisite: PSYC 201

This course surveys the theoretical and empirical work in the area of cognitive psychology. Topics include pattern recognition, attention, memory, problem solving, and comprehension. Students will become familiar with models of cognition through didactics and experiential exercises.

PSYC 403 *Psychology of Learning* Three Credit Hours
Prerequisite: PSYC 201

A comprehensive and critical review of the experimental literature in the area of learning and motivation, including the major learning theories and the motivational determinants of behavior.

PSYC 404 *Industrial/Organizational Psychology* Three Credit Hours
Prerequisite: PSYC 201

Application of psychological principles to the world of work. Specific topics include concepts of work, job satisfaction, personnel selection, performance appraisal, human engineering, leadership, and organizational behavior.

PSYC 405 *History and Systems of Psychology* Three Credit Hours
Prerequisite: PSYC 201

Historical survey of psychology, emphasizing contributions of major "schools" of psychology, theories, their place in science, and current theoretical trends.

PSYC 407 *Psychological Testing* Three Credit Hours
Prerequisite: PSYC 201

A survey of the theory and principles of psychological testing, demonstration and discussion of representative tests of intelligence, aptitude, achievement, interests, and personality.

PSYC 410 *Advanced Psychological Study* Three Credit Hours
Required of all senior psychology majors; open to others with the permission of the instructor.

A study of selected critical issues in contemporary psychology, encompassing the various aspects of the discipline. Special emphasis will be given to integrating concepts, principles, and skills learned from earlier courses and related disciplines.

PSYC 418 *Internship in Psychology* Three Credit Hours
Prerequisite: Permission of department head

Internships providing student observation and participation in a psychologically oriented activity may be periodically offered to combine academic training with professional experience. Students will be expected to relate internship experiences to the psychological literature.

PSYC 420 *Research Project* Three Credit Hours
Prerequisite: Permission of department head

An independent research project culminating in a formal paper. Strongly recommended for students planning graduate study. Approval for enrollment based on capability of applicant and the acceptance of a written proposal.

PSYC 463 *Special Topics in Psychology* Three Credit Hours
Prerequisites: PSYC 201 and permission of department head

This course is designed to focus on a current problem, technique, or theory in the field of psychology.

The curriculum for the psychology major is based on a classic liberal education model in the field. Required courses provide a solid foundation, preparing students for graduate education or entry level employment. The field of psychology is much more diverse than can be fully reflected in our required curriculum, yet limited resources make a full slate of elective courses in psychology impossible. Through a single *special topics* course, the department can offer (on at least a bi-annual basis) courses that will expose students to the frontiers of the field while we maintain a focus on the mainstream of psychology through required courses. Non-majors, who have at least surveyed the field and who have been introduced to the social scientific process through PSYC 201, may also round out their curriculum with this course as a non-departmental elective.

SCHOOL
OF
SCIENCE
AND
MATHEMATICS

Col. Isaac S. Metts, Jr., Interim Dean

Department of Biology
Lt. Col. Paul M. Rosenblum, Head

Department of Chemistry
Col. James R. Blanton, Head

Department of Health, Exercise and Sport Science
Lt. Col. John S. Carter, Head

Department of Mathematics
and
Computer Science
Lt. Col. John I. Moore, Jr., Head

Department of Physics
Col. Peter J. Rembiesa, Head

Department of Biology

Department Head: Rosenblum
Professors: Forsythe, Rosenblum
Associate Professors: Bowman, Darden, Kelley, Weinstein
Assistant Professors: Gustafson, Johnson, Zanin, Zardus

The Biology Department is structured to offer courses which give students a better understanding of themselves, their relationship with their environment, and the diversity of life. Enrichment courses with minimum prerequisites are offered in summer and evening programs for interested individuals.

B.S. Biology Major

The major is designed to provide students with a broad background in modern biology which will prepare them for employment or further study in graduate or professional schools. All students majoring in biology are required to take the Introduction to Biology I and II sequence (BIOL 130, 131, 140, 141), Cell Biology (BIOL 205), Genetics (BIOL 308) and Ecology (BIOL 406). Students must take five biology electives. One must be chosen from each of the following course groupings:

Cell and Molecular Biology Courses:

BIOL	310	Microbiology
BIOL	401	Developmental Biology
BIOL	402	Descriptive Histology
BIOL	424	Molecular Genetics

Ecology and Field Biology Courses:

BIOL	314	Vascular Flora of South Carolina
BIOL	407	Conservation Ecology
BIOL	408	Ornithology
BIOL	409	Marine Biology
BIOL	410	Vertebrate Natural History
BIOL	426	Freshwater Biology

Organismal Biology Courses:

BIOL	203	Introduction to Plant Biology
BIOL	208	Evolution
BIOL	301	Invertebrate Zoology
BIOL	302	Comparative Vertebrate Anatomy
BIOL	307	Animal Behavior

BIOL	322	History of Biology
BIOL	403	Animal Physiology
BIOL	419	Economic Botany
BIOL	421	Toxicology

Two additional biology electives are required. These can be chosen from the courses above as well as:

BIOL	320	Intern Research
BIOL	412	Special Topics in Biology
BIOL	414	Environmental Physiology
BIOL	427	Immunology

Premedical-Predental Program

Students who are planning to enter medical school, dental school, veterinary school, or professional school in allied health should consider the B.S. Biology major. The flexibility of the major course of study permits the preprofessional students to tailor their plans of study to each area of specialty. The department coordinates a voluntary program where students may gain practical experience before graduation. The large number of electives available in the biology curriculum makes it possible for the student to develop the broad science-humanities background necessary in the medical or dental profession.

Minor in Biology

Students seeking a minor in Biology will be required to complete either the General Biology I and II sequence (BIOL 101, 102, 111, 112) or the Introduction to Biology I and II sequence (BIOL 130, 131, 140, 141). A minimum of 12 additional credit hours is required for the minor. One course must be selected from each of the three areas listed below and at least two of these courses must involve laboratory work.

Cell and Molecular Category Courses

BIOL	205	Cell Biology
BIOL	308	Genetics
BIOL	310	Microbiology
BIOL	401	Developmental Biology
BIOL	402	Descriptive Histology
BIOL	424	Molecular Genetics
BIOL	427	Immunology

Field Biology Category Courses

BIOL	209	Environmental Science

BIOL 314	Vascular Flora of South Carolina
BIOL 406	Ecology
BIOL 407	Conservation Ecology
BIOL 408	Ornithology
BIOL 409	Marine Biology
BIOL 410	Vertebrate Natural History
BIOL 426	Freshwater Biology

Organismal Category Courses

BIOL 203	Introduction to Plant Biology
BIOL 208	Evolution
BIOL 301	Invertebrate Zoology
BIOL 302	Comparative Vertebrate Anatomy
BIOL 307	Animal Behavior
BIOL 317	Human Anatomy and Physiology I
BIOL 318	Human Anatomy and Physiology II
BIOL 327	Human Anatomy and Physiology I Laboratory
BIOL 328	Human Anatomy and Physiology II Laboratory
BIOL 322	History of Biology
BIOL 403	Animal Physiology
BIOL 414	Environmental Physiology
BIOL 419	Economic Botany
BIOL 421	Toxicology

Minor in Molecular Biology and Biochemistry

The Departments of Biology and Chemistry offer a joint minor in Molecular Biology and Biochemistry. This minor will be beneficial to students interested in careers in medicine, dentistry, and other health science fields as well as those who wish to pursue careers in the chemical and biochemical industry. Active learning exercises, use of scientific literature, computer modeling, inquiry-based laboratories, and research are important components of the courses in the sequence. Requirements for the minor vary slightly depending on the student's major. The following courses are prerequisites for the minor: BIOL 130/131 and 140/141; CHEM 151/161, 152/162, 207/217, and 208/218.

Requirements for Students Majoring in Biology

BIOL 424	Molecular Genetics
BIOL or CHEM 429	Literature Seminar
CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

BIOL 310	Microbiology
or	
CHEM 300	Quantitative Analysis

Requirements for Students Majoring in B.A. Chemistry

BIOL 308	Genetics
BIOL 424	Molecular Genetics
BIOL or CHEM 429	Literature Seminar
CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

Requirements for All Other Majors

BIOL 308	Genetics
BIOL 424	Molecular Genetics
BIOL or CHEM 429	Literature Seminar
CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

Biology Course Descriptions

BIOL 101 *General Biology I* Three Credit Hours

Corequisite or Prerequisite: BIOL 111

An introductory course in biology designed for non-majors that emphasizes the importance of biology and its impact on human society. Topics include the methods of science, cell structure and function, photosynthesis and cellular respiration, molecular biology, and genetics.

Lecture: three hours.

BIOL 102 *General Biology II* Three Credit Hours

Corequisite or Prerequisite: BIOL 112

A continuation of the introductory course for non-majors that covers topics including evolution, the diversity of life, plant and animal form and function, and principles of ecology. It is recommended that students complete BIOL 101 and 111 before taking BIOL 102 and 112.

Lecture: three hours.

BIOL 111 *General Biology I Laboratory* One Credit Hour

Corequisite or Prerequisite: BIOL 101

Laboratory exercises designed to parallel and support the lecture content of BIOL 101.

Laboratory: two hours.

BIOL 112 *General Biology II Laboratory* One Credit Hour

Corequisite or Prerequisite: BIOL 102

Laboratory exercises designed to parallel and support the lecture content of BIOL 102.

Laboratory: Two hours.

BIOL 130 *Introduction to Biology I* Three Credit Hours

Corequisite or Prerequisite: BIOL 131

An introductory course required of all biology majors and education majors whose teaching field is biology; recommended for students in other majors who are interested in medicine or other health professions. Topics include the scientific method and data analysis, cell and molecular biology, and genetics.

Lecture: three hours.

BIOL 131 *Introduction to Biology I Laboratory* One Credit Hour

Corequisite or Prerequisite: BIOL 130

Laboratory exercises designed to parallel the lecture content of BIOL 130.

Laboratory: three hours.

BIOL 140 *Introduction to Biology II* Three Credit Hours

Prerequisite: BIOL 130 and 131 or a grade of “B” or better in BIOL 101 and 111

Corequisite or Prerequisite: BIOL 141

A continuation of the introductory course for biology majors. Topics include evolution, the diversity of life, plant and animal biology, and ecology.

Lecture: three hours.

BIOL 141 *Introduction to Biology II Laboratory* One Credit Hour

Prerequisite: BIOL 130 and BIOL 131

Corequisite or prerequisite: BIOL 140

Laboratory exercises designed to parallel the lecture content of BIOL 140.

Laboratory: three hours

BIOL 203 *Introduction to Plant Biology* Four Credit Hours

Prerequisite: BIOL 102/112 or 140/141

A general survey of the vascular and nonvascular plants. Lecture and laboratory experiences will include a study of the characteristics, life cycles, evolutionary trends, ecological importance, and economic value of each plant group.

Lecture: three hours; laboratory: three hours.

BIOL 205 *Cell Biology* Four Credit Hours

Prerequisite: BIOL 140/141

Required of all biology majors.

An introduction to the morphological, biochemical and biophysical properties of cells and their significance in life processes.

Lecture: three hours; laboratory: three hours.

BIOL 206 *Human Genetics* Three Credit Hours

Prerequisite: BIOL 101

Does not count toward the biology major

This course will introduce students to a variety of genetic issues that they will encounter during their lives including: 1) the genetic basis of disease; 2) genetically modified organisms; 3) genetic screening and prenatal diagnosis; 4) cancer; 5) the human genome; 6) genetically modified organisms; and 7) DNA fingerprinting. In addition to gaining a scientific understanding of these issues, the ethical and societal impacts will be discussed.

Lecture: three hours.

BIOL 208 *Evolution* Three Credit Hours

Prerequisite: BIOL 140/141

A basic course in the concepts of evolution and population dynamics. The history of evolutionary thought, the processes of organic evolution, and systematics are included.

Lecture: three hours.

BIOL 209 *Environmental Science* Three Credit Hours

Does not count toward the biology major

Human impact on our environment has never been so intensive or so far-reaching. Fundamental conditions in global nutrient cycling, biological diversity, atmospheric composition, and climate are changing at an unprecedented rate. This course will use real world case studies to investigate the complex interactions among ecology, geology, chemistry, ethics, policy, and economics.

Lecture: three hours.

BIOL 301 *Invertebrate Zoology* Four Credit Hours

Prerequisite: BIOL 140/141

A general study of the invertebrate animals, including taxonomy, morphology, and ecology.

Lecture: two hours; laboratory: four hours.

BIOL 302 *Comparative Vertebrate Anatomy* Four Credit Hours

Prerequisite: BIOL 140/141

A study of the functional anatomy of representative vertebrate animals. Emphasis will be placed on the evolution of the vertebrate body and adaptations in form and function in response to environmental pressures.

Lecture: three hours; laboratory: three hours.

BIOL 307 *Animal Behavior (Ethology)* Three Credit Hours

Prerequisite: BIOL 140/141 or PSYC 201

This course deals with the description, development, and adaptive nature of behavior in free-living animals. The laboratory will emphasize the description and quantification of behavior patterns. It is highly recommended that students take Statistics before enrolling in this course.

Lecture: two hours; laboratory: two hours.

BIOL 308 *Genetics* Four Credit Hours

Prerequisite: BIOL 205 or permission of the instructor; STAT 160 strongly recommended.

Required of all biology majors.

A study of inheritance, including Mendelian genetics, molecular genetics, changes in chromosome structure and number, cytogenetics, and population genetics.

Lecture: three hours; laboratory: three hours.

BIOL 310 *Microbiology* Four Credit Hours

Prerequisite: BIOL 205 or approval of instructor.

A general study of microorganisms and their importance to humans with special emphasis on their fundamental life processes. Includes a brief introduction to epidemiology and immunology.

Lecture: three hours; laboratory: three hours.

BIOL 314 *The Vascular Flora of South Carolina* Four Credit Hours

Prerequisite: BIOL 140/141 or approval of instructor.

An introductory study of the native vascular flora of South Carolina, emphasizing the identification and collection of native plants. The student will have practice in use of taxonomic keys and in preparation of specimens.

Lecture: two hours; laboratory: four hours.

BIOL 317 *Human Anatomy and Physiology I* Three Credit Hours

Prerequisite: BIOL 101/111

Does not count toward biology major.

An introduction to the integrated structure and function of human organ systems covering cells and tissue; integumentary, skeletal, and nervous systems; and sensory organs.

Lecture: three hours; laboratory: BIOL 327 is optional.

BIOL 318 *Human Anatomy and Physiology II* Three Credit Hours

Prerequisite: BIOL 317

Does not count toward biology major.

A continuation of the study of integrated structure and function of the human organ systems covering muscular, cardiovascular, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems.

Lecture: three hours; laboratory, BIOL 328 is optional.

BIOL 320 *Intern Research* Three Credit Hours

Prerequisite: Permission of the department head and supervising instructor.

Students will have the opportunity to participate in ongoing research projects with faculty at The Citadel, The Medical University of South Carolina, National Marine Fisheries Services, and The South Carolina Department of Natural Resources, etc. Students must plan their schedule to allow two free afternoons per week, totaling eight hours per week in the laboratory or field, excluding travel. They are expected to maintain a weekly laboratory notebook and write a research paper detailing their work.

Eight hours per week.

BIOL 322 *History of Biology* Three Credit Hours

Prerequisite: BIOL 140/141 or permission of the instructor.

Major aspects of the development of biological sciences and their relationship to other scientific disciplines. Special attention will be paid to the development and content of theories and to changes in the methods of biological research.

Lecture: three hours.

BIOL 327 *Human Anatomy and Physiology I Lab* One Credit Hour

Prerequisite: BIOL 101/111

Corequisites or prerequisites: BIOL 317

Does not count toward biology major.

Laboratory exercises designed to illustrate and support lecture content of BIOL 317.

Laboratory: two hours.

BIOL 328 *Human Anatomy and Physiology II Lab* One Credit Hour

Prerequisite: BIOL 317

Corequisites or prerequisites: BIOL 318

Does not count toward biology major.

Laboratory exercises desogned to illustrate and support lecture content of BIOL 318.

Laboratory: two hours.

BIOL 401 *Developmental Biology* Four Credit Hours

Prerequisite: BIOL 205

Contemporary experimental theories are combined with classical observations which focus on the mechanisms of early development in invertebrates and vertebrates. Laboratories include use of such model systems as sea urchins, frogs, and other indigenous species to explore fertilization strategies and aspects of egg-sperm interactions and early development of the embryo.

Lecture: three hours; laboratory: three hours.

BIOL 402 *Descriptive Histology* Four Credit Hours

Prerequisite: BIOL 140/141

A detailed study of the chief types of animal tissues and a description of the histology of organs. Laboratory work includes microscopic study of cells, tissues, and organs of animals.

Lecture: three hours; laboratory: three hours.

BIOL 403 *Mammalian Physiology* Four Credit Hours

Prerequisites: BIOL 140/141 and CHEM 208

A systematic study of the general physiology of mammalian organ systems. (Formerly known as Animal Physiology)

Lecture: three hours; laboratory: three hours.

BIOL 406 *Ecology* Four Credit Hours

Prerequisite: BIOL 140/141

Required of all biology majors.

An introduction to the study of biological interrelationships and the effects of the environment on the structure and function of animal and plant populations. Laboratory will emphasize methods and materials of ecological investigations. It is highly recommended that students take Statistics before enrolling in this course.

Lecture: three hours; laboratory: four hours.

BIOL 407 *Conservation Ecology* Three Credit Hours

Prerequisite: BIOL 406

Conservation ecology is an integrated science based primarily on ecology, with important contributions from genetics, evolution, biogeography, sociology, economics, and political science. The course will address definitions, origins, and patterns of biological diversity, explore why the maintenance of biodiversity in native and human dominated ecosystems is fundamentally important to the continued well-being of humans and other species, and examine the context and causes of extinction and strategies for preventing or ameliorating the loss of biodiversity.

Lecture: three hours

BIOL 408 *Ornithology* Four Credit Hours

Prerequisite: BIOL 140/141

A study of the structure, function, and ecology of birds. Field trips and bird specimens will give students a working knowledge of birds common to South Carolina.

Lecture: two hours; laboratory: four hours.

BIOL 409 *Marine Biology* Four Credit Hours

Prerequisite: BIOL 140/141

The lectures cover major ecological factors and the fundamentals of oceanography. Laboratory work stresses familiarities with species, taxonomic methods, sampling procedures, experimental design, use of equipment, and data handling.

Lecture: two hours; laboratory: four hours.

BIOL 410 *Vertebrate Natural History* Four Credit Hours

Prerequisite: BIOL 140/141

An introduction to the classification, ecology, evolution and distribution of the vertebrates. Laboratory with emphasis on identification and field study techniques, especially with respect to the vertebrates of South Carolina.

Lecture: three hours; laboratory: three hours.

BIOL 412 *Special Topics in Biology* Three Credit Hours

Prerequisite: permission of the instructor.

A course designed for the study of specialized topics in modern biology.

Lecture: three hours.

BIOL 414 *Environmental Physiology* Four Credit Hours

Prerequisites: BIOL 205; BIOL 403 (recommended)

This course will cover the physiological adaptations of organisms to physical and chemical parameters of the environment. It includes molecular mechanisms which help organisms adapt to environmental factors.

Lecture: three hours; laboratory: three hours.

BIOL 419 *Economic Botany* Three Credit Hours

Prerequisite: BIOL 140/141 or approval of instructor.

An introductory course in economic botany devoted to the consideration of plants which are useful or harmful to humans; their origins and history, botanical relationships, chemical constituents which make them economically important, and their roles in prehistoric and modern cultures and civilizations.

Lecture: three hours.

BIOL 421 *Toxicology* Four Credit Hours

Prerequisite: BIOL 102 or 140 and CHEM 104 or 152, or BIOL 318

An overview of the basic science of poisons, including the disposition of chemicals in the body, the role of metabolism in enhancing or reducing their toxicity, mechanisms of toxicity, and the effects of toxicants on major organ systems.

Lecture: three hours; laboratory: three hours.

BIOL 424 *Molecular Genetics* Four Credit Hours

Prerequisite: BIOL 308, CHEM 208; CHEM 409 Strongly Suggested; BIOL 310 suggested.

Coordinated lecture/laboratory class covering classical molecular and cellular biochemistry as well as modern molecular genetics. Study of the manner in which genetic information is carried in DNA and how DNA directs the synthesis of proteins in bacterial and eukaryotic cells and their associated viruses. Specific topics to be covered include mechanisms governing gene expression, metabolic control system, gene therapy, oncogenesis, molecular genetics of genetic diversity, molecular basis of human diseases, and a review of known disease-causing genes such as the cystic fibrosis gene, Huntington's chorea gene, and the Duchenne Muscular Dystrophy gene.

Lecture: three hours; laboratory: three hours.

BIOL 426 *Freshwater Biology* Four Credit Hours

Prerequisite: BIOL 140/141

The study of freshwater organisms and their environment. Instruction will cover the biological diversity, ecological and physiological adaptations, and the physical setting of freshwater systems. Local systems of interest include large coastal rivers and lakes, upper portions of estuaries and old rice fields.

Lecture: two hours; laboratory: four hours.

BIOL 427 *Immunology* Three Credit Hours

Prerequisite or corequisite: BIOL 205 and BIOL 308

A description of the immune system including the cells and organs involved in immunity; antigen-antibody reactions; immunoglobulin structure, function; organization and expression of immunoglobulin genes; the major histocompatibility complex; immune regulation and tolerance. These basic concepts will be applied to understanding the role of the immune system in vaccinations; infectious disease; organ transplantation; autoimmune disease; immunodeficiency diseases; AIDS and cancer.

Lecture: three hour

BIOL 429 *Literature Seminar* One Credit Hour

Prerequisite: BIOL 140/141

A current topics course that involves discussions of relevant journal articles and related materials.

Department of Chemistry

Department Head: Blanton
Professor: Blanton, Mabrouk
Associate Professors: Crawford, McAfee, Rushing, Zuraw
Assistant Professors: Brown, Dorko

The course of study for students majoring in chemistry is designed to prepare them to enroll as graduate students in full standing at leading universities; to provide the foundation for pursuing careers in medicine, dentistry, and other professions; and to fill positions as chemists in industrial laboratories. The curricula embody training in the five fundamental subdivisions of the science: biochemistry, inorganic, organic, analytical, and physical chemistry.

The department occupies Byrd Hall, which was completed in 1968. Within its 52,000 square feet, this facility houses a lecture theater, laboratories, a centrally located library, and conveniently located stock, preparation, and balance rooms.

The B.S. in Chemistry and the B.S. in Chemistry - Biochemistry Specialization curricula are intended for those students who plan to enter graduate, medical, dental, veterinary, or other professional schools; military service; positions in industry; and teaching. Such a variety of career options is possible due to the number of general electives that are available as a part of these degree plans. A specific curriculum will be developed in consultation with the student's academic advisor to fit the student's career goals. Students who plan to go to graduate school in chemistry, biochemistry, chemical engineering, or medical research or to fill positions in industrial laboratories may elect to take additional courses to qualify for the American Chemical Society approved curricula for both the B.S. in Chemistry and B.S. in Chemistry-Biochemistry degrees.

The curriculum for the B.A. in Chemistry provides great flexibility in choosing electives, and this permits the design of a program to fit the student's individual aspirations. This degree is intended for those who wish to combine a technical background with a more liberal arts education.

ACS Approved Program

Students who wish to pursue research related careers (medical, chemical, industrial) should consider taking the courses to complete the ACS approved programs. Students receiving these additional requirements are awarded a certificate by the American Chemical Society documenting their status as professional chemists and are frequently given preferential treatment as candidates for professional positions. In order to qualify for this distinction, students must take CHEM 315, CHEM 460, MATH 131 (instead of MATH 106), MATH 132 (instead of MATH 107), and MATH 234 (as an elective course). A chapter of Student Affiliates of the ACS is active at The Citadel.

Premedical Program

Students who plan to enter medical school or allied professional schools such as dental or veterinary school should consider either of the two B.S. in Chemistry - Biochemistry Specialization programs. The non-ACS curriculum will provide a solid foundation for medical, dental or veterinary school. However, students who are pursuing a career in medical research should consider taking the ACS approved curriculum. Students who plan to enter medical school upon completion of their baccalaureate degrees should acquaint themselves with requirements of the medical schools of their choice and plan their programs accordingly. An extremely worthwhile reference to the entrance requirements for all medical schools in the United States and Canada is *Medical School Admission Requirements,* published each year by the Association of American Medical Colleges, One DuPont Circle N.W., Washington, D.C. 20036.

Minor in Chemistry

Objectives: The minor in chemistry will provide students with a stronger background in chemistry than they would obtain from the requirements in the core curriculum. It is designed to acquaint students with the more advanced theories and techniques that are illustrated in the major subfields of chemistry.

Knowledge and/or Skills to be Achieved: In general, the student completing the minor will have a more in-depth foundation in chemical bonding, physical properties and synthesis of compounds, chemical thermodynamics and kinetics, chemical and instrumental analyses, properties of biomolecules, and the design of polymers. More specifically, by the choice of advanced courses, the student may gain greater insight with regards to one or more of these general areas to meet specific career goals. Additionally, because the department places considerable emphasis on oral and written presentations, the student will gain considerable experience in interpreting and presenting chemical data in a professional manner.

This minor is not approved for students majoring in Chemistry.

Structure of the minor:

1. Required Courses: (8 Credit Hours)

CHEM 151	General Chemistry I*
CHEM 161	General Chemistry Laboratory I*
CHEM 152	General Chemistry II*
CHEM 162	General Chemistry Laboratory II*
CHEM 207	Organic Chemistry I
CHEM 217	Organic Chemistry Laboratory I
CHEM 208	Organic Chemistry II
CHEM 218	Organic Chemistry Laboratory II

*These four courses meet the requirements for the core curriculum, and their hours are **not** counted toward the total for the Minor in Chemistry. Also note that CHEM 103/113 and CHEM 104/114 do **not** meet the requirements for the Minor in Chemistry.

2. Electives: (10 Credit Hours)**
   A. One of the three sequential upper-level offerings (300 or above)

CHEM 305/306	Physical Chemistry I & II
CHEM 300/302	Quantitative Analysis/Instrumental Analysis
CHEM 401/402	Inorganic Chemistry I & II

   B. Any combination of additional upper-level chemistry courses which bring the total number of hours to at least 18 including at least one upper-level laboratory course. Again, this total is exclusive of the eight hours of General Chemistry required for the core curriculum.

**Biology majors will be required to take 12 credit hours of upper level offerings. The additional courses must be approved in advance by the Head of the Department of Chemistry.

Total Credit Hours required—18

Minor in Molecular Biology and Biochemistry

The Departments of Biology and Chemistry offer a joint minor in Molecular Biology and Biochemistry. This minor will be beneficial to students interested in careers in medicine, dentistry, and other health science fields as well as those who wish to pursue careers in the chemical and biochemical industry. Active learning exercises, use of scientific literature, computer modeling, inquiry-based laboratories, and research are important components of the courses in the sequence. Requirements for the minor vary slightly depending on the student's major. The following courses are prerequisites for the minor: BIOL 130/131 and 140/141; CHEM 151/161, 152/162, 207/217, and 208/218.

Requirements for Students Majoring in Biology

BIOL 424	Molecular Genetics
BIOL or CHEM 429	Literature Seminar

CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

and one of the following

BIOL 310	Microbiology
CHEM 300	Quantitative Analysis

Requirements for Students Majoring in B.A. Chemistry

BIOL 308	Genetics
BIOL 424	Molecular Genetics
BIOL or CHEM 429	Literature Seminar
CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

Requirements for All Other Majors

BIOL 308	Genetics
BIOL 424	Molecular Genetics
BIOL 429	Literature Seminar
CHEM 409	Biochemistry I
CHEM 410	Biochemistry II
CHEM 460	Biochemistry Laboratory

Requirements for Non-Science Students

Unless the students' degree plans stipulate they take CHEM 151/161 and CHEM 152/162, it is highly recommended they take CHEM 103/113 and CHEM 104/114. A student may not use both CHEM 103 and CHEM 151 or CHEM 104 and CHEM 152 to meet degree requirements.

Chemistry Course Descriptions

CHEM 103 *Introduction to Chemistry I* Three Credit Hours

Corequisite or prerequisite: CHEM 113

For non-science majors only.

The first semester of a course designed for students who do not expect to take any other course in chemistry. The course will cover the fundamentals of chemistry including electronic structure of the atoms, bonding, basic chemical calculations, gases, and various types of reactions. Mathematical emphasis will be less rigorous than in CHEM 151. Chemical processes of products used in everyday life will be stressed.

Lecture: three hours.

CHEM 104 *Introduction to Chemistry II* Three Credit Hours

Prerequisites: CHEM 103 and CHEM 113 or CHEM 151 and CHEM 161

Corequisite or prerequisite: CHEM 114

For non-science majors only.

The concluding semester of a course designed for students who do not expect to take any other course in chemistry. Among the topics to be covered will be the relationship of chemistry to ecology, to the human body, to energy productions, and to product manufacturing. Emphasis will be placed on making students more informed consumers as they choose and use everyday products.

Lecture: three hours.

CHEM 113 *Introduction to Chemistry Laboratory I* One Credit Hour

Prerequisite or corequisite: CHEM 103

Required of all students selecting CHEM 103.

Student-conducted laboratory procedures and experiments designed to parallel as closely as possible and to enhance the material covered in CHEM 103. Emphasis will be placed on basic laboratory techniques. Demonstrations will be used to illustrate important chemical concepts.

Laboratory: two hours.

CHEM 114 *Introduction to Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 103 and CHEM 113

Corequisite or Prerequisite: CHEM 104

Required of all students selecting CHEM 104.

A continuation of CHEM 113. Experiments and demonstrations will parallel, as closely as possible, and enhance the material covered in CHEM 104. Preparation and analysis of some interesting common products will be conducted.

Laboratory: two hours.

CHEM 151 *General Chemistry I* Three Credit Hours

Corequisite or prerequisite: CHEM 161; Chemistry majors must have a grade of C or higher.

Required of all freshmen majoring in the sciences and engineering; the chemistry option for B.S. in Mathematics or Computer Science; elective to others.

Problem-solving techniques and essential concepts, including structure and properties, reactions, stoichiometry, states of matter, thermochemistry, and bonding. Calculators with logarithmic capability are required.

Lecture: three hours.

CHEM 152 *General Chemistry II* Three Credit Hours

Prerequisites: CHEM 151 and CHEM 161; Chemistry majors must have a grade of C or higher.

Corequisite or prerequisite: CHEM 162

Required of all students majoring in the sciences and engineering; the chemistry option for B.S. in Mathematics or Computer Science; elective to others.

Continuation of CHEM 151. Emphasis includes solutions, kinetics, equilibrium, acids and bases, solubility, redox, and an introduction to organic chemistry.

Lecture: three hours.

CHEM 161 *General Chemistry Laboratory I* One Credit Hour

Prerequisite or corequisite: CHEM 151

Required of all students selecting CHEM 151.

Introduction to laboratory techniques and experiments designed to accompany the topics covered in CHEM 151.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 162 *General Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 151 and CHEM 161

Corequisite or prerequisite: CHEM 152

Required of all students selecting CHEM 152.

A continuation of CHEM 161; experiments include an introduction to qualitative analysis, quantitative techniques, and selected instrumental methods.

Laboratory: two hours. (Note: Chemistry majors register for a special section of this course which meets three hours a week.)

CHEM 207 *Organic Chemistry I* Three Credit Hours

Prerequisites: CHEM 152 and CHEM 162; Chemistry majors must have a grade of C or higher.

Required of all sophomores majoring in chemistry.

A study of the aliphatic hydrocarbons, their preparations and reactions, with emphasis on reaction mechanisms and transformations.

Lecture: three hours.

CHEM 208 *Organic Chemistry II* Three Credit Hours

Prerequisites: CHEM 207 and CHEM 217

Corequisite or prerequisite: CHEM 218

A study of aromatic compounds and the various functional classes of compounds. Emphasis will be placed on reactions, reaction mechanisms, and transformations. Important biomolecules will be covered briefly.

Lecture: three hours.

CHEM 217 *Organic Chemistry Laboratory I* One Credit Hour

Corequisite or prerequisite: CHEM 207

A course which emphasizes the development of skill in the use of basic laboratory techniques through the completion of a series of experiments involving various types of reactions such as substitution, elimination, and addition reactions with an introduction to modern instrumentation such as the IR spectrophotometer, gas chromatograph, and NMR spectrometer.

Laboratory: three hours.

CHEM 218 *Organic Chemistry Laboratory II* One Credit Hour

Prerequisites: CHEM 207 and CHEM 217

Corequisite or prerequisite: CHEM 208

A continuation of CHEM 217 with the emphasis on the synthesis, reactions, and identification of the various classes of organic compounds.

Laboratory: three hours.

CHEM 300 *Quantitative Analysis* Four Credit Hours

Prerequisites: CHEM 152 and CHEM 162 and MATH 107 or the equivalent or permission of the department head.

Required of all juniors majoring in chemistry; elective to others.

This course has as a primary focus the chemical principles involved with classical gravimetric and volumetric analysis; however, modern methods of analysis including colorimetry and potentiometry are introduced.

Lecture and discussion: three hours; laboratory: three hours.

CHEM 302 *Instrumental Methods* Four Credit Hours

Prerequisites: CHEM 300 and CHEM 305 or permission of the instructor.

Corequisite: CHEM 306

Required of all juniors majoring in chemistry; elective to others.

Modern instrumental methods of analysis are discussed, with emphasis on the physical or chemical principles involved in the method, design or analytical instruments, and treatment of analytical data. Laboratory work provides practice in the three major areas of instrument analysis—chromatography, electrochemistry, and spectroscopy.

Lecture: two hours; laboratory: four hours.

CHEM 305 and *Physical Chemistry I and II* Three Credit Hours
CHEM 306 Each Semester

Prerequisites: MATH 132 or MATH 107; and PHYS 204/254 or PHYS 221/271; CHEM 152, CHEM 162 or permission of department head.

Corequisite for CHEM 305: CHEM 300

Prerequisite for CHEM 306: CHEM 305

Corequisite for CHEM 306: CHEM 302 and CHEM 316

Required of all juniors majoring in chemistry; elective to others.

CHEM 305 provides a detailed study of the laws of thermodynamics, Gibbs Energy calculations, and chemical equilibrium. CHEM 306 covers phase equilibria in both ideal and non-ideal solutions, surface thermodynamics, kinetic theory of gases, kinetics and mechanisms or reactions, viscosity, and electrical conductance of electrolyte solutions.

Lecture: three hours.

CHEM 308 *Introduction to Chemical Research* Two Credit Hours

Required of all chemistry majors; elective to others.

This course is an introduction to the literature of chemistry and the basics of developing a research project. Students will be introduced to both computer and print-based literature searches and will apply these skills as they research their thesis topics under the direction of a faculty research advisor.

Lecture and discussion: two hours.

Prerequisite: CHEM 208

CHEM 309 *Current Topics in Chemistry* Three Credit Hours

Prerequisites: A two-semester sequence of freshman chemistry.

General elective only.

Interesting current topics will be presented at a level appropriate for students with a general chemistry background. The topics will be determined by student interest and faculty availability.

Lecture: three hours.

CHEM 310 *Survey of Nuclear Science* Three Credit Hours

Prerequisites: CHEM 300; MATH 106 and MATH 107 or equivalents; PHYS 204/254 or equivalent; or permission of the instructor.

Elective course; not open to physics majors.

A survey of the field of nuclear science particularly as applied to chemistry.

Lecture: three hours.

CHEM 315 and CHEM 316 *Physical Chemistry Laboratory I & II* One Credit Hour Each Semester

Prerequisite: MATH 107 or MATH 132

Corequisites or prerequisites: CHEM 305 and CHEM 306

Required of all chemistry majors; elective to others.

The first semester course will be devoted to attaining skills in the evaluation, analysis, and presentation of experimental data. Topics covered will include graphing techniques, error analysis, extraction of useful quantities from raw data, use of computers in handling data, and the use of spreadsheets. The second semester work will be a hands-on study of experimental physical chemistry, emphasizing the acquisition of data that can be analyzed using the skills learned in the first semester.

CHEM 319 *Applied Current Topics in Chemistry* Three Credit Hours

Prerequisites: A two-semester sequence of freshman chemistry.

General elective for all majors.

Interesting topics will be presented at a level appropriate for students with a general chemistry background. This course will utilize a laboratory component.

CHEM 320 *Polymer Chemistry* Three Credit Hours

Prerequisites: CHEM 208 and CHEM 305 or approval of instructor

A general overview of polymer chemistry which includes mechanisms of polymerization, reactions of monomers, molecular weight distributions and limitations, polymer morphology and rheology, structure elucidation, applications, and industrial processing.

Lecture: three hours.

CHEM 401 *Inorganic Chemistry I* Three Credit Hours

Prerequisites: CHEM 208 and CHEM 305 or approval of instructor

Required of all chemistry majors.

An introduction to the systematic chemistry of the elements and the structures and reactions of their compounds. Topics covered include atomic and bonding theories, acid-base theories, symmetry and spectroscopy, and chemistry of the main group elements.

Lectures: three hours.

CHEM 402 *Inorganic Chemistry II* Three Credit Hours

Prerequisites: CHEM 401

Required of all B.S. chemistry majors; elective to others.

The chemistry of the transition metals, including bonding theories, coordination compounds, organometallic chemistry, catalysis and bioinorganic chemistry.

Lecture: three hours.

CHEM 403 *Special Topics in Biochemistry* Three Credit Hours

Prerequisites: CHEM 208

Required of B.S. Chemistry majors; elective to others.

An in-depth study of a selected topic in chemistry that requires a thorough understanding of organic chemistry. Topics vary depending on student interest and instructor availability.

Lecture: three hours.

CHEM 404 *Advanced Topics in Chemistry* Three Credit Hours

Prerequisites: CHEM 300, CHEM 305, and CHEM 315

Elective course.

A detailed study of a selected contemporary topic will be presented at a level that requires comprehension of the subject matter covered in the physical chemistry and quantitative analysis courses.

Lecture: three hours.

CHEM 409 *Biochemistry I* Three Credit Hours

Prerequisites: CHEM 207, CHEM 208, CHEM 217, and CHEM 218

Elective course.

A coverage of the chemistry of amino acids, peptides and proteins; enzymes; biochemical energetics; Kreb's cycle; electron transport system and oxidative phosphorylation; and amino acid metabolism.

Lecture: three hours.

CHEM 410 *Biochemistry II* Three Credit Hours

Prerequisite: CHEM 409 or permission of department head.

A continuation of the topics covered in Biochemistry I. Topics include lipids with emphasis on fatty acid oxidation, synthesis and lipid biosynthesis, and carbohydrates and their metabolism.

Lecture: three hours.

CHEM 419 *Senior Research I* Three Credit Hours

Required of all B.S. Chemistry majors; elective to others with permission of the instructor.

This course provides an introduction to a research topic of the student's choosing and under the direction of a faculty advisor. After the topic has been approved by the faculty advisor, the student will be allowed to initiate the project. Using this topic, the student will be required to develop a research proposal which will be presented in the form of a seminar to the Chemistry Department Faculty and the chemistry majors.

CHEM 420 *Senior Research II* Three Credit Hours

Prerequisite: CHEM 419

A continuation of CHEM 419 in which the research project is completed and the data and results are compiled into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

CHEM 425 *Senior Thesis I* Two Credit Hours

Required of all B.A. Chemistry majors.

This course requires an exhaustive literature search and the presentation of a seminar to the Chemistry Department Faculty and chemistry majors.

CHEM 425 *Senior Thesis II* Two Credit Hours

Prerequisites: CHEM 425

A continuation of CHEM 425 in which the literature review is continued and expanded into a senior thesis. To finalize the project, the student will present a seminar to the Chemistry Department Faculty and chemistry majors and defend the thesis before a committee of faculty members from the Chemistry Department.

CHEM 429 *Literature Seminar* One Credit Hour

Prerequisites: CHEM 151/161; 152/162; 207/217; 208/218.

A current topics course that involves discussions of relevant journal articles and related materials.

CHEM 460 *Biochemistry Laboratory* One Credit Hour

Corequisites: CHEM 409 OR CHEM 410

Covers experimental techniques commonly used in biochemistry including protein isolation and characterization, enzyme kinetics, isolation and manipulation of DNA, reactions and characterization of lipids and carbohydrates.

Laboratory: three hours.

Department of Health, Exercise and Sport Science

Department Head: Carter
Professors: Carter, Templeton
Associate Professors: Davakos, Wilson
Assistant Professors: Garner, Kirby

The purpose of the Department of Health, Exercise and Sport Science is to provide an exemplary educational environment and experiences leading to acquisition of skills, knowledge, and attitudes within the domains of human movement and healthful living. Competence within each of these areas contributes to preparation of principled leaders for positions of leadership within their respective fields.

Required Physical Education Program

The RPED program is designed to provide an exemplary educational environment and experiences which contribute to an improved quality of life for the student. The program offers basic instruction in adult and lifetime physical fitness, healthful living, physical activities and recreational sports which are of immediate and lasting value to each student.

All cadets are required to complete four semesters of RPED.

All cadets must take RPED 250 and RPED 251.

RPED 250 *Contemporary Health Foundations* Two Credit Hours

The purpose of this course is to provide basic information in personal health, drug and substance use and abuse, nutrition, stress management and human sexuality. The course is designed to provide a knowledge base for health maintenance and development of proper health values.

Lecture: two hours.

RPED 251 *Foundations of Physical Fitness and Exercise* Two Credit Hours

This course is designed to teach students what physical fitness is; why they should be fit; how they can evaluate physical fitness; and what can be done to develop, maintain and improve levels of physical fitness. Basic exercise physiology, body mechanics, exercise programs and prescriptions are taught.

Lecture: two hours.

All cadets must successfully complete two different activity (100 level) RPED courses. Cadets may elect any two activities from the following courses.

RPED 103 *Beginning Swimming* 0 Credit Hours

A beginning swimming course designed for adults who are classified as non-swimmers or poor swimmers.

RPED 105 *Intermediate Swimming and Emergency Water Safety* 0 Credit Hours

Prerequisite: Swimming proficiency

A course consisting of instruction in the five basic swimming strokes, self-rescue, basic lifesaving techniques and emergency water safety.

RPED 110 *Individualized Physical Education* 0 Credit Hours

A course providing an individualized approach to health-related aspects of physical fitness, including, but not limited to, cardiorespiratory and muscular endurance, strength, flexibility and body composition.

RPED 111 *Beginning Racquetball* 0 Credit Hours

A course designed to provide instruction in the rules, skills and strategies of playing racquetball.

RPED 113 *First Aid and CPR (ARC)* 0 Credit Hours

A certification course of the American Red Cross for community first aid and cardiopulmonary resuscitation for adults, children and infants.

RPED 114 *Lifeguarding (ARC)* 0 Credit Hours

Prerequisites: Swimming proficiency

Corequisite: RPED 117

A certification course designed to teach the skills and knowledge required to properly assume responsibilities of a lifeguard. Completion of this course may result in ARC lifeguarding certification.

RPED 115 *Water Safety Instruction (ARC)* 0 Credit Hours

Prerequisites: Swimming proficiency

An instructor course which may result in ARC certification for all levels of swimming instruction.

RPED 116 *Lifeguard Instructor (ARC)* 0 Credit Hours

Prerequisites: RPED 114 or a current ARC lifeguard training certificate.

An instructor course which may result in ARC certification for water safety and lifeguarding instruction.

RPED 117 *CPR for the Professional Rescuer* 0 Credit Hours

Corequisite: RPED 114

A certification course of the American Red Cross for lifeguards, fire officers, police officers, and others with a duty to provide care. Includes adult, child, infant, two-person and bag valve mask CPR.

RPED 122 *Archery* 0 Credit Hours

A course which provides instruction in the basic knowledge and skills of target archery.

RPED 124 *Beginning Golf* 0 Credit Hours

A course which teaches grip, stance, and swing development, as well as knowledge of rules and strategy of recreational and competitive golf.

RPED 126 *Judo* 0 Credit Hours

A comprehensive coverage of the history, dojo etiquette, ukemi (break-fall), nagewaza (throwing) and ne-waza (grappling) techniques.

RPED 127 *Skin and SCUBA Diving* 0 Credit Hours

Prerequisite: Swimming proficiency

Basic techniques of using mask and snorkel are taught. Material is presented to provide information related to underwater physics and physiology. This course will prepare a student for confined water SCUBA work. This is not a certification course, but a prerequisite that may lead to eventual PADI certification.

RPED 128 *Skin and SCUBA Diving II* 0 Credit Hours

Prerequisite: RPED 127 or completion of PADI's five academic modules and approval of instructor.

Confined water practice using SCUBA equipment. Completion of this course may result in a PADI Referral certificate for open water certification dives.

RPED 129 *Beginning Tennis* 0 Credit Hours

A course which emphasizes grip, stance, footwork, and basic movement patterns in executing serve and ground strokes and stresses knowledge of rules and etiquette.

RPED 130 *Weight Training* 0 Credit Hours

A course which stresses proper lifting techniques as well as knowledge concerning the relationship between strength training and various sports programs.

RPED 134 *Jogging* 0 Credit Hours

A course which presents jogging as a means of developing and maintaining a satisfactory level of cardiorespiratory fitness.

RPED 135 *Intermediate Tennis* 0 Credit Hours

Prerequisite: RPED 129 or equivalent.

This course requires minimal skills (serve, forehand, and backhand ground strokes) and presents more advanced skills such as lob, smash and net play in addition to advanced strategy in singles and doubles play.

RPED 136 *Sailing and Canoeing* 0 Credit Hours

Prerequisite: Swimming proficiency

A course which includes basic knowledge and skill concerning small sailing craft and canoes.

RPED 137 *Beginning Kayaking* 0 Credit Hours

A course designed to teach basics of flat water kayaking for lakes and oceans.

RPED 140 *Sigma Delta Psi* 0 Credit Hours

A course designed to prepare a student for thirteen sports/fitness skill tests required for membership in this national athletic fraternity.

RPED 142 *Orienteering* 0 Credit Hours

A presentation of skills for cross-country running with map and compass.

RPED 143 *Water Skiing* 0 Credit Hours

A progressive presentation of water skiing skills from land drills through proper power boat handling to basic, intermediate and advanced techniques with the double and single (slalom) equipment.

RPED 148 *Beginning Yoga* 0 Credit Hours

A course presenting basic philosophy, positions and breathing techniques of yoga. Emphasis is also placed on meditation and positive thinking as means to reduce stress and increase concentration.

RPED 149 *Tae Kwon Do* 0 Credit Hours

An introductory course in the martial art of Tae Kwon Do. Knowledge, history, basic techniques, fundamental movements, required behaviors, discipline and respect are emphasized.

RPED 150 *Kendo* 0 Credit Hours

An introduction to Kendo, or Japanese fencing, requires that rules, basic techniques and customs and courtesies of Kendo be learned. The first three Nihon Kendo Kata will also be taught. Students are expected to learn proper care and use of kendo equipment and clothing. Students successfully completing the course will have begun learning the U.S. Kendo Federation requirements for the rank of first kyu.

RPED 151 *Aerobic Activities* 0 Credit Hours

This course will cover rhythmic and step aerobic techniques. Students will study techniques used in both systems as well as health issues in weight reduction and physical fitness development.

RPED 155 *Special Topics* 0 Credit Hours

These courses allow students to take activity courses not offered on a regular basis. Examples include cardio fitness, pilates, Jujitsu, boating and boating safety and advanced kayaking.

HEALTH, EXERCISE AND SPORT SCIENCE MAJORS

The purpose of the professional preparation program is to prepare undergraduate students for selected involvement within the broad fields of health, exercise and sport science while maintaining reasonable flexibility for adaptation beyond the specialty area. This is accomplished by offering professional opportunities within two tracks: the teaching track and the professional track.

Physical Education (Teaching Track)

The teaching track is designed to provide an exemplary educational environment and experiences leading to acquisition of skills, knowledge and attitudes within the domains for human movement, growth and development of individuals; and application of physical, biological and behavioral sciences to the teaching/learning process. Competence within each of these areas contributes to preparation of our students in accordance with state and national standards, and markets them for leadership positions in schools. The curriculum for prospective physical education teachers is designed to build progressively upon meaningful concepts and experiences acquired within other disciplines as well as those unique to the profession. In addition, competencies identified with successful teaching methodology are an integral part of the curricular content.

Assignment to Pre-Physical Education (Teaching Track)

Students interested in teaching physical education at K-12 grade levels are first assigned as Pre-Physical Education (Teaching Track). At this level of admission, the responsibility of the student is to successfully complete all three parts of the PRAXIS I examination. Successful completion of this test of basic skills in reading, writing, and mathematics is a requirement for admission to Physical Education (Teaching Track) major, and this requirement should be met by the end of the sophomore year. In addition, the student is responsible to make certain, with counsel of his or her advisor, to follow the appropriate curriculum. The student should also be aware of the importance of maintaining a grade point ratio that will allow admission to the Physical Education (Teaching Track) major.

Admission to Physical Education (Teaching Track) Major

To be admitted to the Physical Education (Teaching Track) Major, the student enrolled in Pre-Physical Education (Teaching Track) must have the support of his or her advisor relative to suitability and interest in teacher education and must also have:

1. Successfully completed all three parts of the PRAXIS I;
2. Maintained a cumulative Grade Point Ratio of 2.500 or higher on at least 45 credit hours of coursework taken at The Citadel.
3. Successfully completed PHED 101, PHED 200, PHED 203 and PHED 235.

Students who have not met all these requirements by the end of their sophomore year will not be permitted to enroll in 300- or 400-level courses in the major and will be encouraged to consider another major.

Admission to the Internship in Teaching (PHED 499)

Students must make a formal application for admission no later than May 1st of the previous academic year for admission to the spring internship in teaching. The internship is not normally offered to students in fall semesters. This application will be reviewed by the faculty of the Department of Health, Exercise and Sport Science and will include, among other things, recommendations from professors in completed professional education courses and an evaluation by the student's advisor regarding the student's suitability and interest in teacher education. In addition, the student must have:

1. Completed (with a GPR of at least 2.500) all required coursework except PHED 404, 421 and 499;
2. Completed the following professional education courses with the cumulative GPR of at least 2.500: PHED 101, 200, 203, 235, 300, 305, 314, 319, 321, 335, 350, 433, 460 and HLED 407;
3. Successfully completed all previous field experiences;
4. A PRAXIS subject area test score on file at The Citadel.

The Director of Teacher Education will be informed of the results of this review and will send official notice of admission or rejection to the student. In the absence of significant extenuating circumstances, a student not eligible for the Internship in Teaching will be required to change majors.

Graduation Requirements

To meet graduation requirements, the Physical Education (Teaching Track) major must complete all requirements of the course of study and must have earned a GPR of at least 2.500 on each of the following: all cumulative coursework and all professional education courses.

Completion of the curricular requirements may result in licensure by the South Carolina Department of Education to teach physical education in grades K-12. A passing score on Praxis II is required for teacher licensure by the South Carolina Department of Education.

Additional licensure in health education may be pursued through 12 hours of required courses (*) and 12 hours of electives selected from among the following offerings. Successful completion of the health specialty of the Praxis II exam is also required.

***Required Courses**		**Credit Hours**
BIOL 317	Human Anatomy and Physiology I	3
BIOL 318	Human Anatomy and Physiology II	3
HLED 400	First Aid/Emergency Care	3
HLED 407	Methods of Teaching School Health Education	3
		12

Approved Electives		**Credit Hours**
HLED 302	Drug and Substance Abuse	3
HLED 401	Nutrition	3
HLED 403	Human Sexuality	3
HLED 404	Public Health	3
HLED 408	Health and Epidemiology	3
HLED 410	Consumer Health	3

Successful completion of RPED 250 (Contemporary Health Foundations) *and* RPED 251 (Foundations of Physical Fitness and Exercise) will be credited as one contemporary health problems course.

Health, Exercise and Sport Science (Professional Track)

Alternatives to the teaching of physical education are available through two professional specialty areas: Health/Wellness and Sport Management/Administration.

The Health and Wellness Option is designed to provide an exemplary educational environment and experiences leading to acquisition of skills, knowledge and attitudes within the domains for human movement and healthful living. Competence within each of these areas contributes to preparing our students for graduate education and leadership positions in health and allied health professions, public and private health agencies and the wellness and fitness industry.

A student in the Health/Wellness option must complete the professional track curriculum which includes six (6) of the following approved elective courses:

Microcomputer Applications	CSCI 110
Genetics	BIOL 308
Microbiology	BIOL 310
General Biology II	BIOL 102
Man and His Environment	BIOL 209
Human Sexuality	HLED 403
Public Health	HLED 404
General Psychology	PSYC 201
Introduction to Sociology	SOCI 201
Statistical Methods	STAT 160
Abnormal Psychology	PSYC 304
Sport Psychology	PHED 408

Theories of Personality	PSYC 306
Applied Psychology	PSYC 404
Health and Epidemiology	HLED 408
Consumer Health	HLED 410
Special Topics	HLED/PHED 411
Senior Research Project	PHED 420

The Sport Management and Administration Option is designed to provide an exemplary educational environment and experiences leading to acquisition of skills, knowledge and attitudes within the domains for management and administration of sport, exercise and recreation. Competence within each of these areas contributes to preparing our students for graduate education and leadership positions in sport management and sport professions, including the recreational industry, college/university sports, resort sports programming, intramural-club-recreational sports programs and management positions within the wellness and fitness industry.

A student in the Sport Management/Administration option must complete the professional curriculum and select six (6) of the following courses as approved electives.

Principles of Macroeconomics	BADM 201
Principles of Microeconomics	BADM 202
Accounting I	BADM 211
Accounting II	BADM 212
Legal Environment of Business	BADM 305
Marketing Principles	BADM 309
Communications in Business	BADM 316
Business Finance	BADM 321
Principles of Management	BADM 325
Organizational Theory and Behavior	BADM 328
Marketing Management	BADM 405
Consumer Behavior	BADM 414
Microcomputer Applications	CSCI 110
General Psychology	PSYC 201
Sport Psychology	PHED 408
Special Topics	PHED 411
Senior Research Project	PHED 420

Minor in Health

Objectives:

The minor in health is designed to allow students to acquire knowledge and understanding in a discipline that is universal in application. Participation in the program will allow students to attain a level of expertise in an area that can complement their major and increase avenues of professional development. The minor program is *not* designed to meet requirements for South Carolina public school licensure in health education.

Competencies, Knowledge, or Skills to be Achieved:

Students will have an opportunity to explore the role of health in an advanced society. Students will gain knowledge and skills which can advance their health status and the wellness of their family.

Structure of the Minor:

1. *Required Courses*

HLED 400	First Aid and Emergency Care
HLED 401	Nutrition
HLED 403	Human Sexuality
PSYC 202	Developmental Psychology

2. *Electives*

The student may choose any two of the following courses:

BIOL 209	Man and His Environment
BIOL 406	Ecology
HLED 302	Drug and Substance Abuse
HLED 404	Public Health
HLED 408	Epidemiology
HLED 410	Consumer Health
PHED 319	Physiology of Exercise
PHED 406	Directed Field Experience
PHED 420	Senior Research Project
PSYC 304	Abnormal Psychology
PSYC 404	Applied Psychology

Students should confer with their faculty advisors concerning the desire to minor in health and file a declaration of intent with the Head of the Department of Health, Exercise and Sport Science. The declaration is to include the projected course of study. The department head will approve the proposed program of study and verify its completion to the Registrar.

Total Credit Hours Required—18

Health, Exercise and Sport Science Course Descriptions

PHED 101 *Introduction to Health, Exercise, Sport Science and Physical Education* Three Credit Hours

A study of philosophies, aims, objectives and principles of health, exercise, sport science and physical education. Professional development and career opportunities are also emphasized.

Lecture: three hours

PHED 102 *Learning Theory and Methodology* Three Credit Hours

A presentation of basic learning theory and methodology related to the acquisition of gross motor skills.

Lecture: three hours

PHED 200 *Motor Development* Three Credit Hours

Instruction will focus on study of sequential changes and characteristics of physical growth and development related to physical activity across the lifespan. Consideration of factors associated with individual differences in attaining motor proficiency during childhood, adolescence, and adulthood will be examined. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 202 *Care and Prevention of Athletic Injuries* Three Credit Hours

Prerequisites: BIOL 317 and BIOL 318

Discussion, demonstration, and application of skills and procedures utilized in athletic training.

Lecture: three hours

PHED 203 *Accommodating Persons with Disabilities Within Sport and Physical Activity* Three Credit Hours

A course to prepare students for accommodating persons with disabilities in situations involving access to facilities and equipment, physical fitness assessment and programming, sports participation and competition, and as a team member within various professional settings. A field experience component of a minimum of 10 hours is required.

Lecture: three hours

PHED 235 *Motor Learning* Three Credit Hours

Prerequisites: PHED 101, PHED 200, or department head approval.

Instruction will focus on principles of motor learning, with implications for learning gross motor skills, processes underlying skilled performance, how skilled performances are learned and how to apply principles of skilled performance and learning to instructional settings. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 300 *Technology in Health, Exercise, Sport Science and Physical Education* Three Credit Hours

Technology impacts health, exercise, sport and physical education in so many aspects that make it important to more clearly recognize its current and potential roles. Through use of Internet and www, lecture/demonstrations and hands-on experiences, students will use and evaluate a variety of software, shareware, freeware, professional links and other related information pertaining to technology integration.

Lecture: three hours

PHED 305 *Measurement and Evaluation* Three Credit Hours

A course that includes test selection and administration, analysis and interpretation of data for various cognitive, affective and psychomotor tests commonly associated with health, exercise, sport and physical education. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 314 *Biomechanical Kinesiology* Three Credit Hours

Prerequisites or corequisites: BIOL 317, BIOL 318.

The anatomical and mechanical analysis of functional posture and motor performance for the purpose of improving teaching and coaching effectiveness.

Lecture: three hours

PHED 319 *Physiology of Exercise* Four Credit Hours

Lecture: Three hours Laboratory: Two hours

Prerequisites: BIOL 317, BIOL 318

An in-depth study of effects of exercise upon components of physical fitness, including strength, muscular endurance, flexibility and cardiovascular-respiratory endurance.

PHED 321 *Methods of Teaching Rhythmic Activities* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program (Level 2)

A methodological treatment of fundamental rhythmics, for grades K-12 including creative rhythmics, traditional dance steps, folk dance, square dance, social dance, line dance, aerobics and basic rhythmic activities. A field experience component of a minimum of 10 hours is required.

Lecture: three hours

PHED 335 *Health and Physical Education Curriculum* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program (Level 2)

A review of curricula available for teaching health and physical education in grades K-12. Focus is on constructing and implementing developmentally appropriate movement and fitness experiences for elementary/middle/secondary school learners from various backgrounds. A review of curricular models available for teaching health and physical education including curriculum evaluations and current issues and trends in health, movement and physical fitness for elementary/middle/secondary school learners from various backgrounds. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 350 *Methods of Teaching Individual and Dual Sports* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program (Level 2)

The course emphasizes methods of teaching and/or coaching individual and dual sports. Included are examination of theoretical and practical knowledge and applications for both individual and dual sports, with additional emphasis on the most popular of such sports in American society. Individual and dual sports are further divided into indoor and outdoor sports. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 404 *Administration of Health, Exercise, Sport Science and Physical Education* Three Credit Hours

A study of administrative philosophies and procedures related to health, exercise, sport science and physical education. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

PHED 406 *Directed Field Experience* Three Credit Hours

A controlled exposure to professional experiences in a selected area, e.g. athletic coaching, athletic training, physical therapy, intramurals, recreation, recreation therapy, sport business and public health education.

A field experience component of a minimum of 100 hours is required.

PHED 408 *Introduction to Sport Psychology* Three Credit Hours

Analysis and interpretation of current research including maturation and development, learning theory, perception, personality, motivation and group dynamics related directly to sport, exercise, physical education and competitive athletics.

Lecture: three hours

PHED 411 *Special Topics in Health, Exercise, Sport Science and Physical Education* Three Credit Hours

A course designed for specialized study of a current topic in the fields of health, exercise, sport science and physical education.

Lecture: three hours

PHED 420 *Senior Research Project* Three Credit Hours

A research problem conducted as an independent study. The topic and procedure for this study must be approved by department faculty.

PHED 421 *Senior Seminar in Health, Exercise, Sport Science and Physical Education* One Credit Hour

A seminar conducted for the purpose of reviewing subject matter from all courses in the health, exercise, sport science and physical education curriculum. An opportunity is provided to apply what has been learned to a written project and oral presentation requiring critical thinking, creativity and problem solving.

PHED 433 *Elementary School Physical Education* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program

Study of the progressively graded program of activities for elementary schools, grades K-5. Theoretical as well as practical material will be presented.Taking Praxis II is a requirement for the course

A field experience component of a minimum of 15 hours is required.

Lecture: three hours

PHED 460 *Methods of Teaching Team Sports* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program (Level 2)

The course emphasizes methods of teaching and/or coaching team sports. Included are an examination of theoretical and practical knowledge and applications for team sports, with additional emphasis on the most popular of such sports in American society. Team sports are further divided into outdoor and indoor sports. A field experience component of a minimum of 15 hours is required.

Lecture: three hours

PHED 499 *Internship in Teaching* Twelve Credit Hours

Prerequisite: 20 hours field experience (minimum).

Observation and teaching in approved schools under the direction of cooperating teachers and a college supervisor.

Two placements are required: one in an elementary school setting and one in a secondary school setting. A field experience component of a minimum of 62 days is required.

HLED 302 *Drug and Substance Abuse* Three Credit Hours

A study of characteristics of commonly abused drugs and substances and reasons for use and abuse.

Lecture: three hours

HLED 400 *First Aid and Emergency Care* Three Credit Hours

A comprehensive coverage of safety concepts and accident prevention as well as presentation of specific topics including cursory examination, wounds, traumatic shock, asphyxia, cardiac arrest, burns, toxins; and bone, joint and muscle injuries.

For health, exercise and sport science majors only or with department head approval.

Lecture: three hours

HLED 401 *Nutrition* Three Credit Hours

A detailed study of the primary nutrients essential to health with attention given to specific needs from infancy through adulthood. Current theories and practices related to physical and intellectual performances are also investigated. Contemporary topics are presented, including degenerative diseases, food-borne diseases, fad dieting, food additives and health foods.

Lecture: three hours

HLED 403 *Human Sexuality* Three Credit Hours

A comprehensive study of all facets of human sexuality. A course designed to prepare potential health educators in curriculum design for all grade levels, teaching methods, teaching styles and evaluation methods.

Lecture: three hours

HLED 404 *Public Health* Three Credit Hours

An analysis of public health trends, services, funding, and organization of local, state and federal agencies.

Lecture: three hours

HLED 406 *The School Health Program* Three Credit Hours

A study of the total school health program and roles of health and physical education within the program.

Lecture: three hours

HLED 407 *Methods of Teaching School Health Education* Three Credit Hours

Prerequisite: Admission to Physical Education Teaching Program (Level 2)

A course design to prepare students to teach the health education curriculum in K-12 schools. Assessment techniques for standards will also be addressed. The course is designed for any education major. A field experience component of a minimum of 5 hours is required.

Lecture: three hours

HLED 408 *Health and Epidemiology* Three Credit Hours

A course designed to acquaint the potential health educator or public health worker with the science of epidemiology and techniques used in the study of disease and non-disease conditions.

Lecture: three hours

HLED 410 *Consumer Health* Three Credit Hours

A course designed to provide factual and scientifically-based information about medical goods and services as well as development of consumer skills including decision-making, values clarification, assertiveness, bargaining, bidding, data collection and data analysis.

Lecture: three hours

HLED 411 *Special Topics in Health, Exercise, and Sport Science* Three Credit Hours

A course designed for specialized study of a current topic in the fields of health, exercise, and sport science.

Department of Mathematics and Computer Science

Department Head: Moore
Professors: Chen, Comer, Francel, Greim, Hurd, Metts, Moore, Trautman
Associate Professors: Cohn, Denig, Hoyle, Pages, Zahid
Assistant Professors: Lipscomb, Rudolph, Stepp, Zhang

The mission of the Department of Mathematics and Computer Science is to prepare our students and citizens of the Lowcountry to meet the mathematical and computing demands they will face in their careers and as knowledgeable citizens. To achieve this goal, the department offers B.A. and B.S. degrees in mathematics; B.S. and M.S. degrees in computer science; and a variety of minors in mathematics, statistics, information science, and computer science. In addition, the department offers courses in support of other disciplines and courses in quantitative reasoning and data analysis in support of the core educational curriculum. The department supports the disciplines of mathematics and computer science and the growth and development of educational opportunities in the Lowcountry through the graduate programs, research, and public service.

B.S. Mathematics Major

The B.S. program in mathematics is designed to prepare our students to pursue graduate work in pure or applied mathematics and to provide the background which will enable them to use mathematics in the behavioral sciences as well as in more technical areas.

The course of study leading to the B.S. with a major in mathematics includes 24 semester hours of general electives. The required courses are 4 semester hours of computer science (CSCI 201) and the following 34 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 234, MATH 240, MATH 303, STAT 361, MATH 403, MATH 495. In addition, the student must select 15 hours of approved Mathematics Electives from among the mathematics courses numbered at the 300 or 400 level.

B.A. Mathematics Major

The B.A. program features a strong preparation in mathematics with an opportunity to explore another field in some depth. It is strongly recommended that students pursuing the B.A. degree choose a minor as well. Candidates in this program must take 4 semester hours of computer science (CSCI 201) and 31 semester hours of core mathematics: MATH 131, MATH 132, MATH 206, MATH 231, MATH 234, MATH 240, MATH 303, MATH 470, MATH 495; 3 semester hours of statistics: STAT 361; and 6 semester hours of approved Mathematics Electives.

B.S. Computer Science Major

The B.S. program in computer science offers the student a sound foundation in computer science complemented by a broad core of courses in the sciences and liberal arts, a background in mathematics which has sufficient breadth and depth to enable the student to deal with scientific applications as well as the theoretical basis of computer science, and an exposure to computer hardware (microprocessors) through courses offered by the Department of Electrical and Computer Engineering, ELEC 311 (Digital Logic and Circuits) and ELEC 330 (Digital Systems Engineering). Through electives, the student will have the opportunity to gain background in areas such as business administration and political science where the information processing aspects of computer science are readily applied. Upon completion of this course of study, students will be qualified for careers as system analysts, system programmers, or applications programmers in business or industry. In addition, graduates will be prepared to pursue advanced degrees in computer science or related fields.

The course of study leading to the B.S. with a major in computer science includes 15 hours of electives; 17 hours of core mathematics and statistics: MATH 131, MATH 132, MATH 206, MATH 240, STAT 361; 39 hours of required courses in computer science: CSCI 103, CSCI 201, CSCI 202, CSCI 223, CSCI 305, CSCI 320, CSCI 355, CSCI 405, CSCI 420, CSCI 495, ELEC 311, ELEC 330, and one of CSCI 421, CSCI 491, or CSCI 499; and 6 hours of Approved Computer Science Electives selected from among the computer science courses offered at the 300 or 400 level. The complete course of study is provided in the Courses of Study section of this catalog.

Minor in Management Information Systems

Objectives:

A minor in management information systems provides an interdisciplinary opportunity for students to learn how to use computer technology to manage information as a competitive business or organizational asset.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes the minor will have developed a basic competency in current distributed, database-driven information systems and techniques. The minor emphasizes fundamental programming skills, database skills, business management skills, and hands-on experience applying those skills to computer-related projects that support business operations and management decisions.

Structure of the Minor:

1. Required courses: (12 credit hours)

CSCI 216	Management Information Systems
CSCI 217	Web Resources and Design
CSCI 320	Database Design and File Structures
BADM 417	Systems Analysis and Design for Business

2. Electives (3 credit hours)

BADM 317	Computer Applications in Business
or BADM 427	Accounting Information Systems

Total Credit Hours Required — 15, at least 3 of which must be completed at The Citadel

Minor in Computer Programming

Objectives:

A minor in computer programming will provide a student with the opportunity to develop the skills necessary for designing and understanding large programs.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will receive experience with computer programming in a high-level object-oriented language. A student will have the opportunity to develop a sound foundation in techniques for designing, testing, and debugging structured programs.

This minor is not approved for students majoring in Computer Science.

Structure of the Minor:

1. Required courses: (14 credit hours)

CSCI 201	Introduction to Computer Science I
CSCI 202	Introduction to Computer Science II
CSCI 223	Data Structures and Algorithms
MATH 206	Discrete Structures*

*Mathematics majors must substitute an additional CSCI elective.

2. Electives (3 credit hours)

A CSCI course numbered 300 or higher.

Total Credit Hours Required — 17, at least 3 of which must be completed at The Citadel

Minor in Applied Mathematics

Objectives:

This minor is designed to allow a student not majoring in mathematics to learn techniques of applied mathematics and to be exposed to a variety of modeling techniques. Students are expected to have completed one of the calculus sequences MATH 106/107, MATH 131/132, or HONR 107/108 to be eligible.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will have a sound foundation in techniques of linear algebra and differential equations and will have utilized these techniques in at least one area of application.

Structure of the Minor:

1. Required courses: (9 or 10 credit hours)
   MATH 234
   MATH 240
   MATH 470
2. Electives (6 credit hours)
   Choose two from among: MATH 343, MATH 344, MATH 381, MATH 382, or STAT 361

Total Credit Hours Required — 16, at least 3 of which must be completed at The Citadel

Minor in Applied Statistics

Objectives:

A minor in applied statistics will provide students the opportunity to obtain a sound background in practical statistical skills necessary for employment in business, industry, and government.

Competencies, Knowledge, or Skills to be Achieved:

A student who completes this minor will have had the opportunity to develop a variety of statistical tools for analyzing data. The student will make extensive use of statistical software packages and will have the opportunity to apply techniques of statistical analysis in at least one area of application.

Structure of the Minor:

1. Required courses: (9 credit hours)

STAT 361	Introduction to Probability and Statistics
STAT 366	Applied Statistics
STAT 461	Data Analysis

2. Electives (6 credit hours)
   Choose one of these two sequences:
   PSCI 308 and PSCI 393
   PSYC 201 and PSYC 203

Total Credit Hours Required — 15, at least 3 of which must be completed at The Citadel

Mathematics and Computer Science Tutorials

Personal tutorial assistance for students having difficulties with freshman and sophomore level mathematics course work is provided through the Academic Support Center in Thompson Hall. Assistance is provided during the normal working day and during evening study periods. Additional materials — worksheets, workbooks, texts, journals, etc. — which complement classroom work are available.

Mathematics Course Descriptions

MATH 104 *Elementary Mathematical Modeling* Three Credit Hours

Prerequisites: Two years of high school algebra

The course will introduce student to mathematical models of real world problems. In particular, students will use graphs, functions, and tables to describe data and use the models to interpolate and extrapolate. Functions studied will include linear, quadratic, and exponential. Students will be expected to interpret results in writing and use technology to solve and display results.

MATH 105 *Finite Mathematics* Three Credit Hours

Prerequisites: Two years of high school algebra

An introduction to finite mathematics with an emphasis on applications and formulation of problems in mathematical language. Topics selected from matrices, linear programming, mathematics of finance, counting methods, probability, and statistics. The course includes work using a computer software package.

MATH 106 *Applied Calculus I* Three Credit Hours

Prerequisite: Two years of high school algebra

An introduction to the calculus of polynomials, exponential, and logarithmic functions with an emphasis on applications to business and the life and social sciences. *Students may not receive credit for both MATH 106 and MATH 131.*

MATH 107 *Applied Calculus II* Three Credit Hours

Prerequisite: MATH 106

Required for all degrees in chemistry and biology.

A continuation of the calculus introduced in MATH 106. Topics include techniques of integration, applications of integrals, improper integrals, partial derivatives and applications, and a brief introduction to double integrals.

MATH 119 *College Algebra and Trigonometry* Four Credit Hours

A modern treatment of the essential topics of college algebra and trigonometry. The course involves work using a graphics calculator. Offered for students whose mathematics requirement begins with calculus and whose background has been determined by the Department of Mathematics and Computer Science to be inadequate. *A student who passes MATH 119 and subsequently changes to a major that does not require MATH 131 may substitute MATH 119 for MATH 104.*

MATH 131 *Analytic Geometry and Calculus I* Four Credit Hours

Prerequisite: One of MATH 119 with a grade of "C" or higher, a satisfactory score on the placement exam, or approval of the department head.

Required for B.S. degrees in computer science, civil and electrical engineering, mathematics, and physics and for the B.A. degree in mathematics.

Limits, derivatives, applications of the derivative, antiderivatives and definite integrals.

Students who complete MATH 131 and change to a major which does not require MATH 132 must complete one additional MATH course. NOTE: Students may not receive credit for both MATH 106 and MATH 131.

MATH 132 *Analytic Geometry and Calculus II* Four Credit Hours
Prerequisite: MATH 131 with a grade of "C" or higher or HONR 107 with a grade of "C" or higher

Required for B.S. degrees in computer science, civil and electrical engineering, mathematics, and physics and for the B.A. degree in mathematics.

Applications of the integral, transcendental functions, techniques of integration, series and sequences of real numbers, Taylor series, and power series.

MATH 206 *Introduction to Discrete Structures* Three Credit Hours
Prerequisite: One of MATH 131, HONR 107, or MATH 106 with a grade of "C" or higher

Required for B.S. degrees in computer science, mathematics, and electrical engineering and for the B.A. degree in mathematics.

Set algebra including relations and functions, propositional and predicate logic, combinatorics, graphs, and applications of these to various areas of computer science.

MATH 231 *Analytic Geometry and Calculus III* Four Credit Hours
Prerequisites: MATH 132 or HONR 108

Required for B.S. degree in civil and electrical engineering, mathematics, and physics and for the B.A. degree in mathematics.

The analytical geometry of two and three dimensions, the differential and integral calculus of functions of two or more variables, and vector differential calculus.

MATH 234 *Applied Engineering Mathematics I* Four Credit Hours
Prerequisite: MATH 132 or HONR 108

Required of all mathematics, civil engineering, electrical engineering and physics majors.

An integrated course in linear algebra and differential equations. Topics include differential equations of the first order and degree, linear differential equations of higher order, systems of differential equations, the Laplace transform, vector spaces, bases, linear transformations, systems of linear equations, algebra of matrices, and determinants.

MATH 240 *Linear Algebra* Three Credit Hours
Prerequisite: MATH 132 or MATH 107 or HONR 108

Required for B.S. degrees in computer science and mathematics and for the B.A. degree in mathematics.

Systems of linear equations, algebra of matrices, inverses, determinants, vector spaces with emphasis on Euclidean vector spaces, bases, subspaces, transformations, eigenvalues and eigenvectors, and quadratic forms.

MATH 303 and MATH 304 *Modern Algebra I and II* Three Credit Hours Each Semester

Prerequisites: For MATH 303: MATH 206 and MATH 240. For MATH 304: MATH 303.

MATH 303 is required for B.S. and B.A. degrees in mathematics.

A two-semester sequence in the algebraic structures which lie at the foundations of many areas of modern mathematics. Topics chosen from theory of groups, rings, integral domains, and fields, coding theory, Galois theory, modules, and Euclidean constructions.

MATH 305 *Modern Geometry* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

Special topics from axiomatic geometries. Topics include Euclidean geometry, projective geometry, non-Euclidean geometry, and metric projective geometry.

MATH 335 *Applied Engineering Mathematics II* Three Credit Hours

Prerequisite: MATH 231 and MATH 234

Required for all electrical engineering and physics majors.

Advanced topics in differential equations and multi-dimensional calculus. Topics include power series solutions of differential equations, line and surface integrals, Fourier series, vector integral calculus, special functions, and an introduction to partial differential equations.

MATH 343 *Applied Numerical Methods I* Three Credit Hours

Prerequisites: MATH 240 or MATH 234 and a knowledge of a programming language

Required of BS mathematics students in applied mathematics option.

An introduction to numerical methods. Topics include floating-point computation, finding zeros of functions, direct methods for solving systems of linear equations, interpolation, and numerical differentiation and integration.

MATH 344 *Applied Numerical Methods II* Three Credit Hours

Prerequisite: MATH 343 and MATH 234

A further study of numerical methods. Topics include approximation, numerical solutions of ordinary differential equations, iterative methods for solving systems of linear equations, eigenvalue problems, and error analysis.

MATH 381 *Deterministic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one of MATH 240 or MATH 234

The theory and applications of deterministic models of operations research. Topics include linear programming and the simplex algorithm, transportation and assignment problems, game theory, graphs and network flows, dynamic programming, and sensitivity analysis.

MATH 382 *Probabilistic Methods of Operations Research* Three Credit Hours

Prerequisites: Two semesters of calculus and one semester of statistics

The theory and applications of probabilistic models of operations research. Topics include queuing models, birth and death processes, finite-state markov chains, inventory theory, forecasting, simulation, decision analysis, and reliability.

MATH 403 and MATH 404 *Introduction to Analysis I and II* Three Credit Hours Each Semester

Prerequisite: MATH 231

MATH 403 is required for B.S. degree in mathematics.

Sets, functions, properties of the ordered field of real numbers, topology of the reals, sequences and series, continuity, differentiation, integration, and sequences and series of functions.

MATH 405 *Mathematical Statistics* Three Credit Hours

Prerequisites: MATH 132 and STAT 361

Axioms of probability, combinatorial probability, random variables, distribution functions, law of large numbers, central limit theorem, estimation, maximum likelihood methods, hypothesis testing, confidence intervals, and non-parametric methods.

MATH 411 *Number Theory* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

The Euclidean algorithm, prime and composite integers, elementary Diophantine equations, Pythagorean triples, Euler's phi-functions, congruences, Euler-Fermat theorems, exponents and primitive roots, and quadratic residues.

MATH 412 *History of Mathematics* Three Credit Hours

Prerequisite: MATH 132 or MATH 107 or HONR 108

A survey of the concepts and methods of mathematics from the time of the ancients to the present. The course includes a research paper on some major mathematician or body of mathematics.

MATH 422 *Complex Variables* Three Credit Hours

Prerequisite: MATH 231

Topics from complex function theory: complex differentiation and integration, Cauchy theorem, complex series and uniform convergence, harmonic functions.

MATH 451 *Graph Theory* Three Credit Hours

Prerequisite: MATH 206

A formal introduction to the theory and applications of graphs. Topics include connectivity, trees, Eulerian graphs, Hamiltonian graphs, planarity, graph colorings, matchings, and domination.

MATH 470 *Mathematical Models and Applications* Three Credit Hours

Prerequisite: MATH 234

Required for B.A. degree in mathematics.

An introduction to the theory and practice of building and analyzing mathematical models for real world situations encountered in the social, biological, and environmental sciences.

MATH 480 *Readings in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Directed reading on assigned topics in mathematics. The course includes weekly conferences with the instructor and a formal paper. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 490 *Topics in Mathematics* Three Credit Hours

Prerequisite: Permission of the instructor

Selected topics in mathematics. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

MATH 495 *Senior Seminar in Mathematics* Three Credit Hours

Required of all mathematics majors. Open only to seniors.

This is a “capstone” course that will cover various topics from the undergraduate mathematics curriculum. Each student will have a substantial term project and will write a paper and make an oral presentation to departmental faculty about that topic.

MATH 499 *Senior Research Project* Three Credit Hours

Prerequisite: Senior standing and approval of department head

Open to senior mathematics majors with a MATH GPA of at least 2.500.

A research project with a required formal paper. Recommended for students planning graduate work. Approval for enrollment based on the acceptance of a written proposal by the instructor and approval of the department head.

Statistics Course Descriptions

STAT 160 *Statistical Methods* Three Credit Hours

Required of all biology majors; open to others. Not open to Mathematics or Computer Science Majors.

Formerly MATH 160.

An elementary treatment of probability and statistical concepts. Topics include data collection, descriptive statistics, measures of central tendency and dispersion, normal and binomial distributions, hypothesis testing, correlation and linear regression. Emphasis will be placed on understanding statistical concepts, experimental design, and interpretation of statistical results. A statistical package will be introduced.

STAT 361 *Introduction to Probability and Statistics* Three Credit Hours

Prerequisites: MATH 131 or MATH 106

Required of all mathematics and computer science majors.

An introduction to probability and statistical concepts. Topics include frequency distributions, measures of central tendency and dispersion, probability rules, probability distributions, sampling distributions, hypothesis testing, analysis of variance, correlation, and regression. A statistical package will be introduced.

STAT 366 *Applied Statistics* Three Credit Hours

Prerequisite: STAT 361 or BADM 205

A course in applied statistics covering practical statistical methods. Topics include comparisons of populations, methods of testing the independence of two variables, statistical methods of verifying or rejecting distributional assumptions, analysis of variance, simple linear regression, and certain nonparametric procedures. Students will obtain experience with statistical packages.

STAT 461 *Data Analysis* Three Credit Hours

Prerequisite: Previous statistics course

An introduction to graphical and exploratory analysis of data with extensive use of familiar statistical packages such as MINITAB. Topics include analysis of variance, two-way designs with interaction, multiple regression models, and basic nonparametric procedures.

Computer Science Course Descriptions

CSCI 103 *Survey of Computer Science* One Credit Hour

Required of all computer science majors before taking any course beyond CSCI 202.

The computer is examined as a machine, problem-solving tool, and information repository. An overview of the discipline of computer science is presented. Students will receive hands-on experience with the computing facilities at The Citadel, and they will learn how to research technical topics and present the results in written and oral form.

CSCI 110 *Microcomputer Applications* Three Credit Hours

Required for all business administration majors.

This course is intended for students having little or no computer experience.

An introduction to computer systems and computer applications is presented in a Windows environment. Students learn to use software packages for word processing, database management, spreadsheets, and communications with applications to management and social sciences.

CSCI 201 *Introduction to Computer Science I* Four Credit Hours

Required of all mathematics and computer science majors.

No previous computer programming experience is needed for this course.

An introduction to problem solving and algorithm development using Java.

Topics include computer organization, operating systems, structured programming, and program modularization. Assignments involve designing, coding, debugging, and documenting computer programs.

Lecture: three hours; laboratory: two hours.

CSCI 202 *Introduction to Computer Science II* Four Credit Hours

Prerequisite: CSCI 201 with a grade of "C" or higher; prerequisite or corequisite: MATH 206.

Required for B.S. degree in computer science.

A continuation of the material covered in CSCI 201. This course emphasizes object-oriented programming and a disciplined approach to program development. Topics include data abstraction, recursion, inheritance, polymorphism, linked data structures, stacks and queues.

Lecture: Three hours; laboratory: two hours.

CSCI 216 *Management Information Systems* Three Credit Hours

Prerequisite: Sophomore standing

Computer-oriented information systems. Program construction in Visual Basic with applications in the management and social sciences is presented in a microcomputer environment. Topics include data organization and collection, file organization, sort and search techniques, database construction and manipulating data created in Microsoft Access using Visual Basic.

CSCI 217 *Web Resources and Design* Three Credit Hours

Prerequisite: Sophomore standing

This course provides an introduction to internet features and web page design. Topics will include finding and evaluating resources, legal issues such as copyright, web design issues, HTML basics, and a brief description of Java applets, Javascript, and application development.

CSCI 223 *Data Structures and Algorithms* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for B.S. degree in computer science.

Formal specification and implementation of abstract data types and analysis of algorithms. Topics include list and set representation methods, sorting, trees and graphs. Data structures used include arrays, queues, binary trees, hash tables, priority queues, search trees, balanced trees.

CSCI 305 *Computer Organization and Programming* Three Credit Hours

Prerequisites: CSCI 202 and MATH 206

Required for a B.S. degree in computer science.

An introduction to computer architecture and assembly language programming with an emphasis on the latter. Relationship of the conventional machine level of a modern computer system with its other layers. Topics are chosen from addressing; machine instructions; I/O; subroutines; parameters; recursion; stacks; coroutines; exceptions; interrupts; number systems and arithmetic; and the physical, digital, and the microprogramming levels.

CSCI 317 *Computer Networks and Internets* Three Credit Hours

Prerequisites: CSCI 202 and CSCI 305

An introduction to data communications and computer networking. Topics include LAN technologies, packet switching networks, internetworking of heterogeneous network technologies, internetworking protocol suites (with emphasis on TCP/IP), the client/server paradigm, the BSD Socket interface, network security, and important network applications.

CSCI 320 *Database Design and File Structures* Three Credit Hours

Prerequisite: CSCI 202 or CSCI 216

Required for B.S. degree in computer science.

An introduction to the logical and physical structures of computer database systems. Topics include data models, query languages, relational database design, database constraints, and file structure. Students will be required to complete a project involving database design and implementation.

CSCI 327 *Computer Security* Three Credit Hours

Prerequisite: CSCI 202 and MATH 206

A survey of the principles and practices related to computer security emphasizing the problems of security associated with computer networks. Topics include cryptography, privacy, authentication, access control and authorization, security policies, legal and ethical issues. A significant component of the course is the investigation of attacks commonly used by computer criminals and strategies that can be used to thwart the attacks.

CSCI 355 *Programming Languages* Three Credit Hours

Prerequisite: CSCI 223; prerequisite or corequisite: CSCI 305

Required for B.S. degree in computer science.

Programming language concepts and constructs with emphasis on the runtime behavior of programs. Topics include imperative, functional, logic and object-oriented programming paradigms, language syntax and semantics, and global properties of programming languages including scope, parameter passing, storage allocation and the binding time of constituents.

CSCI 365 *Object Oriented Programming Using C++* Three Credit Hours

Prerequisite: CSCI 223

This course provides a solid foundation for object-oriented programming using the C++ programming language. It emphasizes the effective use of the advanced language features, presented in the context of modern software engineering themes of modularity, abstraction, information hiding, and reusability. Fundamental principles of object-oriented design and programming are stressed while covering the language details.

CSCI 375 *Enterprise Java* Three Credit Hours

Prerequisite: CSCI 223

A project-oriented course that introduces advance Java technologies for building distributed enterprise and web applications. Topics include applets, threads, networking, JavaBeans, security, JDBC, servlets, and JavaServer Pages (JSP).

CSCI 405 *Operating Systems and Computer Architecture* Three Credit Hours

Prerequisites: CSCI 223 and CSCI 305

Required for B.S. degree in computer science.

An introduction to the concepts of modern operating system design and the architectural features of modern computer systems and a study of the implementations of these components in actual operating systems. Topics include data structures and algorithms to support process control, concurrency, and scheduling; memory management, including virtual memory architectures; I/O and file management; and networks and distributed systems.

CSCI 407 *Introduction to Computer Graphics* Three Credit Hours
Prerequisite: CSCI 223 and MATH 240

An introduction to the fundamental principles of two- and three-dimensional computer graphics. Topics include graphics systems, transformations, clipping, animation, lighting, shading, color, and hidden surface removal. Graphics principles are applied and reinforced through the use of a modern graphics application programming interface (API) to implement a series of programming projects.

CSCI 412 *Principles of Compiler Design* Three Credit Hours
Prerequisite: CSCI 355

A study of the component operations of a compiler, including lexical analysis, syntax analysis, scope analysis, and code generation, and a discussion of related implementation issues. A significant part of the course will be a project to develop a compiler for a simplified programming language.

CSCI 420 *Software Engineering* Three Credit Hours
Prerequisite: CSCI 223

An introduction to current techniques used in large-scale software development. Topics include requirements analysis, functional specification, systems design, implementation, testing, maintenance, project management, and professional ethics.

CSCI 421 *Software Engineering Practicum* Three Credit Hours
Prerequisite: CSCI 420

A team-based project class to apply software engineering practices in a realistic environment. The purpose of the course is to give students an opportunity to construct real-world software in a group using standard software engineering practices.

CSCI 455 *Artificial Intelligence Techniques* Three Credit Hours
Prerequisite: CSCI 355

A survey of artificial intelligence concepts. Topics include knowledge representation, search strategies, logical and probabilistic reasoning, learning, natural language understanding, expert systems, and computer vision.

LISP and PROLOG are used to illustrate implementation of the concepts.

CSCI 490 *Topics in Computer Science* Three Credit Hours
Prerequisite: Permission of the instructor

Selected topics in computer science. The offering of this course will depend upon the interest of the students, the availability of an instructor, and approval of the department head. Since the content of the course may change, a student may repeat the course for credit with the consent of the department head.

CSCI 491 *Internship* Three Credit Hours

Prerequisite: Senior standing

Open to senior computer science majors with a CSCI GPA of at least 2.500.

This course gives senior students real-world work experience to complement the classroom education they have already received. Interns will learn about the variety of issues involved in developing, implementing, and managing computing resources in a real-world setting. Interns will spend ten to twelve hours per week in an area business working alongside an experienced computing professional or as part of a development team.

CSCI 495 *Senior Seminar in Computer Science* Three Credit Hours

Required of all computer science majors. Open only to seniors.

Important topics in computer science will be studied in areas ranging from theoretical computer science to social, professional, and ethical issues. Students will be required to make oral and written presentations.

CSCI 499 *Senior Research Project* Three Credit Hours

Prerequisite: Senior standing and approval of department head

Open to senior computer science majors with a CSCI GPA of at least 2.500.

A research project with a required formal paper. Recommended for students planning graduate work. Enrollment based upon a written proposal accepted by the instructor and approved by the department head.

Department of Physics

Department Head: Rembiesa
Professors: Adelman, Berlinghieri, Hurren, Rembiesa
Associate Professors: Briggs, Hilleke

Physics is the fundamental physical science, the foundation upon which all other physical sciences are constructed. It is a vast and comprehensive discipline which studies the entire realm of nature from the most minute particles, distances, and times imaginable to the most massive stars, the outer limits of the universe, and the eons of duration. It is particularly concerned with those aspects of nature which can be formulated in terms of principles and laws reduced to their essence and expressed in an elegant and concise mathematical form.

The Department of Physics at The Citadel provides a comprehensive curriculum leading to a Bachelor of Science degree in Physics as well as undergraduate education in basic physics through calculus-based and non-calculus based introductory sequences. In addition, some specialized graduate courses are available to support those pursuing advanced degrees in education.

The department sponsors a section of the Society of Physics Students and the physics honor society Sigma Pi Sigma to provide fellowship for physics majors and other students of similar interests and to make available extracurricular activities which illustrate that physics in practice is a vital and active discipline.

I. Bachelor of Science degree in Physics. This degree is designed to offer students a thorough education in physics at the undergraduate level and to prepare them to pursue graduate study in physics as appropriate to their career aspirations. Professional physicists have traditionally experienced careers in education, industry and government, but a sound knowledge of basic physics has become increasingly important to other areas of endeavor as well. For example, a strong undergraduate background in physics is considered essential to a career as a commissioned officer in one of the high-technology branches of the Armed Forces. The curriculum for the B.S. degree in physics is comprehensive and includes 54 semester hours of physics, beginning with a one-semester introduction to physics course followed by a three-semester basic course in physics for engineers and physical scientists, a calculus-based sequence which emphasizes fundamental principles and problem solving, and which also includes a weekly two-hour laboratory each semester. The junior and senior years include upper-division courses in analytical mechanics, electricity and magnetism, mathematical physics, electronics, thermodynamics, optics, modern physics, and quantum mechanics. Research planning and senior research project in the senior year give students an opportunity to apply physics to a theoretical or experimental project or to the design and construction of apparatus.

Requirements for a Bachelor of Science degree in Physics also include five semesters of mathematics, four semesters each of English and foreign language, two semesters each of chemistry and history, and one semester of social science, as well as physical education and ROTC.

The program for physics majors retains flexibility in that a student who does not intend a profession in physics may, at the discretion of the department head, replace up to six credit hours of physics courses numbered above 300 with courses numbered above 300 in other science fields.

II. Physics courses for majors in other fields. As a service to other departments, and to meet the expectations of the college core curriculum, three separate basic physics sequences are individually designed to meet the requirements of specific groups of disciplines. All basic physics sequences have concomitant laboratories.

For the non-science majors and the biology majors who do not intend to continue their education on the graduate level or to pursue careers in medicine; PHYS 203/253 and PHYS 204/254 (College Physics) constitute a survey sequence which emphasizes basic principles, as well as some exciting developments of modern technology.

For the students majoring in natural sciences, engineering, mathematics, and those preparing to be secondary school teachers in general science or physical science, PHYS 221/271 and PHYS 222/272 (Physics with Calculus) cover the fundamental principles of physics using more advanced mathematical tools. Additional, related topics are covered in two accompanying courses, PHYS 231 and PHYS 232 (Applications of Physics with Calculus).

PHYS 323/333/373 is a continuation of this sequence covering modern physics. Descriptive courses in elementary astronomy, ASTR 201 and ASTR 202 are provided as electives.

A student may not use both PHYS 203/204 and PHYS 221/222 in meeting degree requirements, nor can a student take the 203/204 sequence after completing PHYS 221/222. However, should a student whose major does not require PHYS 221/222 complete PHYS 203/204 and then decide, for whatever reason, to complete the calculus-based sequence, PHYS 221 and 222 may satisfy General Elective requirements.

Minor in Applied Physics

Objectives:

The minor in applied physics is designed to allow a student not majoring in physics the opportunity to learn many of the techniques of experimental physics and to obtain an exposure to the principles of modern physics.

Competencies, Knowledge, or Skills to be Achieved:

A student pursuing a minor in applied physics will become competent in the techniques of experimental physics. Skills in applied optics, electronics, solid state, laboratory and experimental techniques will be emphasized.

This minor is not approved for students majoring in physics

Structure of the Minor:

1. *Required Courses: (7 credit hours)*

PHYS 231/232	2	(Applications of Physics with Calculus)
PHYS 323/333/373	5	(Modern Physics)

2. *Elective Courses: (9 credit hours)*

Choose three:

PHYS 308/358	4	(Optics)
PHYS 315	3	(Analytical Mechanics)
PHYS 410	3	(Thermodynamics)
PHYS 307/357	4	(Electronic Instrumentation)
PHYS 451	2	(Advanced Laboratory Physics)
PHYS 419	2	(Research Planning)
PHYS 420	3	(Research Project)

3. *Projected Course of Study*

Students are expected to have had two semesters of calculus as well as Physics 221/271 and 222/272.

Total Credit Hours Required—17 (Plus two semesters of calculus) and two semesters of Physics with Calculus.

Physics Course Descriptions

PHYS 101 *Introduction to Physics* Three Credit Hours

Required of most freshmen majoring in physics.

An elementary course consisting of lectures on physics topics in their historical context from Galileo to the present. Covers fundamental techniques which are useful for learning this discipline. Class notes and library reading will be required.

Lecture: three hours.

PHYS 203 and PHYS 204 *College Physics I and II* Three Credit Hours Each Semester

Prerequisite or corequisite for PHYS 203: PHYS 253
Prerequisite for PHYS 204: PHYS 203 and PHYS 253
Prerequisite or corequisite for PHYS 204: PHYS 254

This course presents physics in a manner suitable for students who do not have a strong background in mathematics. The course is designed primarily to help the non-scientist act in an informed way in today's technically oriented society. Topics covered in the two-semester course include mechanics, thermodynamics, electromagnetism, optics, and modern physics.

Lecture: three hours.

PHYS 221 and PHYS 222 *Physics with Calculus, I and II* Three Credit Hours Each Semester

Prerequisites for PHYS 221: MATH 131, MATH 107, or HONR 107 (May be taken concurrently with MATH 131 with permission of the head of the Department of Physics).

Prerequisite for PHYS 222: PHYS 221

Calculus-based introductory physics sequence designed to address the needs of students majoring in engineering and sciences. Kinematics, dynamics, electricity and magnetism, fluid statics and dynamics, thermodynamics and optics covered with no assumption of prior knowledge of physics.

Lecture: three hours.

PHYS 231, PHYS 232 *Applications of Physics with Calculus, I and II* One Credit Hour Each Semester

Corequisite or prerequisite for PHYS 231: PHYS 221
Corequisite or prerequisite for PHYS 232: PHYS 222

Supplementary introductory physics course designed to address the needs of students majoring in sciences and preparing them for upper-division physics courses in mechanics, thermodynamics and electromagnetism.

Lecture: one hour.

PHYS 253 and PHYS 254 *Physics Laboratory for College Physics I and II* One Credit Hour Each Semester

Prerequisite or corequisite for PHYS 253: PHYS 203
Prerequisite or corequisite for PHYS 254: PHYS 204

These laboratories are designed to correlate with the lecture material in PHYS 203 and PHYS 204, respectively. The experiments are designed to illustrate and emphasize the physical phenomena discussed in the corresponding lecture courses.

Laboratory reports stress writing to learn.

Laboratory: two hours.

PHYS 271, PHYS 272 *Laboratory for Physics with Calculus, I and II* One Credit Hour Each Semester

Corequisite for PHYS 271: PHYS 221

Corequisite for PHYS 272: PHYS 222.

The laboratories parallel and supplement the lecture material in PHYS 221 and PHYS 222, respectively. The laboratories utilize modern measuring equipment including computer interface experiments, oscilloscopes, spectroscopes, etc. PHYS 271 concentrates on the fundamental concepts of physics and their application to the study of material properties. PHYS 272 concentrates on the procedures and techniques used in the experimental laboratory. Emphasis is placed on proper experimental technique, error analysis, and technical report writing. Experiments represent all the areas of physics included in the lecture: measurement, statics, linear and rotational dynamics, wave phenomena, sound, light, thermodynamics, electricity, magnetism and geometric optics.

Laboratory: two hours.

PHYS 301 *Biological Physics* Three Credit Hours

Prerequisites: PHYS 222 and PHYS 272; MATH 107 or MATH 132

The applications of physics to the processes occurring in living systems. Among the topics to be discussed will be bioenergetics, radiation, biophysics, sensory biophysics, and bioelectricity. Attention also will be given to biomedical instrumentation.

Lecture: three hours.

PHYS 307 *Electronic Instrumentation* Three Credit Hours

Prerequisites: PHYS 222 and PHYS 272; MATH 107 or MATH 132

Corequisite: PHYS 357

Required of all physics juniors.

Brief review of DC and AC circuits. Introductions to theory and applications of solid-state diodes, transistors and other semiconductors, amplifiers, waveform generators, operational amplifiers, transducers, and digital electronics.

Lecture: three hours.

PHYS 308 *Optics* Three Credit Hours

Prerequisites: PHYS 222 and PHYS 272; MATH 107 or MATH 132

Required of all physics juniors.

Principles of geometrical and physical optics presented with attention to engineering applications. Topics covered include geometrical imaging, a-b ray analysis, fiber optics, interferometry, thin film optical filters, and polarization. Matrix methods are applied to lens systems, thin films, and polarization.

Lecture: Three hours.

PHYS 315 and PHYS 316 *Analytical Mechanics* Three Credit Hours Each Semester

Prerequisites: PHYS 222 and PHYS 272; MATH 231

Required of all physics juniors.

Statics and dynamics of rigid bodies, Lagrangian and Hamiltonian dynamics, collision kinematics, central-force motion, oscillating systems, introduction to relativity.

Lecture: three hours.

PHYS 320 *Mathematical Physics* Three Credit Hours

Prerequisites: PHYS 222 and PHYS 272; MATH 231

Required of all physics juniors.

Emphasis on mathematical methods of theoretical physics. Topics may include coordinate transformations, vector calculus techniques, special functions, definite integrals, approximations, numerical methods of data reduction, eigenvalue problems, boundary-value problems, representation theory, perturbation theory.

Lecture: three hours.

PHYS 323 *Modern Physics* Three Credit Hours

Prerequisites: PHYS 221 and PHYS 222.

Required of all physics majors and minors; open to others as an elective. A continuation of the 221/222 physics sequence.

The course material covers a selection of topics from twentieth century physics. It progresses from Maxwell equations, propagation of electromagnetic waves, and the wave theory of light to the elements of special relativity, early quantum theory of radiation, then to the principles of quantum mechanics. It discusses the fundamental experiments in modern physics and the principal discoveries in the area of atomic, solid state, nuclear and elementary-particle physics.

Lecture: three hours

PHYS 333 *Applications of Modern Physics* One Credit Hour

Corequisites or prerequisite: PHYS 323.

Supplementary introductory physics course designed to address the needs of students majoring in sciences and preparing them for upper-division physics courses in optics and quantum mechanics.

Lecture: one hour

PHYS 357 *Electronic Instrumentation Laboratory* One Credit Hour

Corequisite or prerequisite: PHYS 307

Required of all physics majors.

Laboratory parallels and supplements lecture material in PHYS 307.

Laboratory: two hours.

PHYS 358 *Optics Laboratory* One Credit Hour
Corequisite or prerequisite: PHYS 308
Required of all physics majors.
Laboratory parallels and supplements lecture material in PHYS 308.
Laboratory: two hours.

PHYS 373 *Modern Physics Laboratory* One Credit Hour
Prerequisites: PHYS 271 and PHYS 272.

Required of all physics majors and minors; open to others with the permissoin of the instructor. This lab concentrates on the role of the apparatus and technology in the experimental laboratory. Experiments include student versions of several fundamental experiments of modern physics.

Laboratory: two hours.

PHYS 403 and *Electricity and Magnetism* Three Credit Hours
PHYS 404 Each Semester
Prerequisites: PHYS 222; MATH 231
Prerequisite or corequisite: PHYS 320
Required of all physics seniors.

The electrostatic field and its effect on matter, the properties of magnetic fields and magnetic materials, electromagnetic effects, vector potentials, displacement currents, Maxwell's equations, Lorentz force on particles, periodic currents.

Lecture: three hours.

PHYS 405 and *Quantum Mechanics* Three Credit Hours
PHYS 406 Each Semester
Prerequisites: PHYS 308, PHYS 313, PHYS 316
Prerequisite or corequisite: PHYS 320
Required of all physics seniors.

An introductory course in quantum mechanics with emphasis on both physical principles and mathematical techniques. Stress is placed on understanding how quantum mechanics is used in explaining the behavior of physical systems.

Lecture: three hours.

PHYS 409 *Intermediate Optics* Three Credit Hours
Corequisite or Prerequisite: PHYS 308 and MATH 232

This course is a continuation of Optics PHYS 308. It develops the Fourier analysis approach to physical optics. Topics covered include the optical transfer function, the wave theory of aberrations, spatial filtering, holography and applications, fiber optics, and nonlinear optics.

Lecture: three hours.

PHYS 410 *Thermodynamics* Three Credit Hours

Prerequisites: PHYS 222 and PHYS 272; MATH 107 or MATH 132

Required of all physics seniors.

Principles of thermodynamics presented with attention to engineering, chemical, and biological applications. First and Second Laws of Thermodynamics, especially as applied to closed hydrostatic systems and open steady-flow systems. Concepts of internal energy, heat flow, enthalpy, and entropy. Perfect gas processes. Carnot cycle for heat engines, heat pumps, refrigerators. Power output; mass flow equations; quality factor for mixed systems.

Lecture: three hours.

PHYS 415 *Special Topics in Physics* Three Credit Hours

Prerequisites: Permission of instructor.

Topics may vary by semester according to student interest and availability of instructor. The subject for a semester will be chosen from such topics as space physics, special relativity, and solid state physics.

Lecture: three hours.

PHYS 416 *Advanced Topics in Physics* Three Credit Hours

Prerequisites: Permission of instructor.

Similar to PHYS 415. The subject for a semester will be chosen from such advanced topics as group theory in quantum mechanics, magnetic resonance, and plasma physics.

Lecture: three hours.

PHYS 419 *Research Planning* Two Credit Hour

Required of all physics seniors.

An outstanding recent development in physics is chosen by one or more students and studied intensively.

Lecture: one hour

Laboratory: two hours.

PHYS 420 *Senior Research Project* Three Credit Hours

Prerequisite: PHYS 419

Required of all physics seniors.

The project started in PHYS 419 (Research Planning) is completed to include a written thesis and an oral presentation.

Lecture: one hour.

Laboratory: four hours.

PHYS 451 *Advanced Laboratory Physics* Two Credit Hours

Required of all physics seniors.

Experiments selected from famous fundamental measurements.

Laboratory: four hours.

Astronomy Course Descriptions

ASTR 201 *Introduction to Astronomy: Sun and Planets* Three Credit Hours

A descriptive introduction to the universe, our sun and its solar system, the Earth and the other planets, asteroids, and comets. Practical observational astronomy. Planetary discoveries made by space craft. Life in the universe.

Lecture: two hours.

Laboratory: two hours.

ASTR 202 *Introduction to Astronomy: Stars and Galaxies* Three Credit Hours

The universe outside the solar system, the sun as a typical star, the Milky Way and other galaxies, pulsars, quasars, and black holes are studied.

Lecture: two hours

Laboratory: two hours.

ASTR 412 *Stellar and Galactic Astrophysics* Three Credit Hours

Prerequisites: PHYS 221 and MATH 132

The structures, atmospheres, dynamics, and evolutions of stars; the techniques of stellar abundance analysis and spectral classification; the reduction, eigenvalue problems, boundary-value problems, representation theory, and perturbation theory.

Lecture: three hours.

Department of Aerospace Studies

Department Head: Ekrem
Professor: Ekrem
Assistant Professors: Betters, Hammond, Hnath, Hurley, Lingerfelt, Miller, Moore, Sincoff, Sullivan, Wohlwinder

Citadel Air Force ROTC courses feature a wide variety of instruction and training opportunities. During the freshman and sophomore years, the curriculum provides students with an understanding of air power's past, present, and future roles in world affairs, as well as its relation to national defense. These courses cover the doctrine, mission, and organization of the defense establishment of the United States and examine the development of air power during this century.

During the junior and senior years, the Air Force ROTC program draws upon many academic principles. Included are communicative skills, a comprehensive analysis of defense policy and the national defense structure, the meaning of professionalism and professional responsibility, the military justice system, functions and practices of leadership and management principles, and problem solving. After the sophomore year, a transfer into Air Force ROTC will be permitted only when the transferring student wishes to pursue an Air Force commission.

Air Force Course Descriptions

AERO 101 *Foundations of the U.S. Air Force I* One Credit Hour
(First Semester—Fourth Class Year)

This course and its follow-on provide the student with an introductory survey of the United States Air Force (USAF) and the Air Force Reserve Officer Training Corps (ROTC). In the first semester, the course begins with an introduction to ROTC as well as the customs, dress and appearance standards expected of Air Force officers. It continues with a discussion of Air Force heritage, the organization of the Air Force and how the Air Force contributes to the accomplishment of our national security objectives. The course concludes with an overview of Air Force career opportunities and benefits. Leadership Laboratory is mandatory for AFROTC contract/pursuing cadets and complements this course by providing cadets with followership experiences.

Lecture: two hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 102 *Foundations of the U.S. Air Force II* One Credit Hour
(Second Semester—Fourth Class Year)

This course covers an introduction to Air Force core values and offers the student an opportunity to learn about leadership. Students are also introduced to basic oral and written communication skills. The course continues by exploring team building skills and the importance of respecting diversity. The course concludes with an understanding of the Air Force oath of office. Leadership Laboratory is mandatory for AFROTC contract/pursuing cadets and complements this course by providing cadets with followership experiences.

Lecture: two hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 201 *The Evolution of USAF Air and Space Power I* One Credit Hour
(First Semester—Third Class Year)

The Evolution of USAF Air and Space Power I, a survey course designed to examine general aspects of air and space power through a historical perspective. This course covers a time period from the first balloons and dirigibles through the Korean War, with emphasis on Principles of War and Tenets of Air and Space Power. Communication skills are further developed through oral and written presentations. Leadership Laboratory is mandatory for AFROTC contract/pursuing cadets and complements this course by providing cadets not only followership and initial leadership opportunities, but also initial preparation for Field Training.

Lecture: two hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 202 *The Evolution of USAF Air and Space Power II* One Credit Hour
(Second Semester—Third Class Year)

The Evolution of USAF Air and Space Power II, AS202 is designed to further examine the aspects of air and space power through a historical perspective covering the time period from the Vietnam War through modern day military operations with emphasis on the Principles of War and the Tenets of Air and Space Power. Communication skills are further developed through oral and written presentations. Leadership Laboratory is mandatory for AFROTC contract/pursuing cadets and complements this course by providing cadets followership, initial leadership opportunities, and an advanced preparation program for Field Training. Contract and pursuing cadets will attend formal Field Training during the summer between their sophomore and junior years.

Lecture: two hours
Lab: two hours (contract or cadets pursuing contracts)
Field Training approximately 30 days (summer after sophomore year)

AERO 301 *Air Force Leadership Studies I* Three Credit Hours
(First Semester—Second Class Year)

Air Force Leadership Studies I, AS300 is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (pursuing/contracted only) complements this course by providing advanced leadership experience in officer type activities, giving students the opportunity to apply the leadership and management principles of this course. First Semester requirements also include individual communications skills. Students are required to research leadership topics and provide oral and written presentations of military and current events.

Lecture: three hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 302 *Air Force Leadership Studies II* Three Credit Hours
(Second Semester—Second Class Year)

Air Force Leadership Studies II, AS 300 is the study of military ethics with a focus on Air Force leadership, accountability, professional and unprofessional relationships and followership. Individuals are required to comprehend selected individual leadership skills and personal strengths and weaknesses as applied in an Air Force environment. Cadets should also comprehend and apply the concepts of ethical behavior as well as comprehend the selected concepts, principles, and theories of Air Force leadership, management and followership. Cadets will use team building, case study analysis to apply leadership principles to real life scenarios.

Lecture: three hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 401 *National Security Affairs and Preparation for Active Duty I* Three Credit Hours
(First Semester—First Class Year)

This survey course covers U.S. national security and military policies and processes, advanced leadership ethics, and national security issues. Other topics include Air Force doctrine; joint Air Force/Army/Naval operations; terrorism and force protection; the Expeditionary Aerospace Force; American tradition in foreign policy; the constitutional relationship between the President, Executive Branch and Congress; ethics; and military law. Leadership Laboratory is mandatory for AFROTC contract cadets and complements this course by providing cadets with leadership and followership experiences as well as preparing the individual for entry onto active duty.

Lecture: three hours
Lab: two hours (contract or cadets pursuing contracts)

AERO 402 *National Security Affairs and Preparation for Active Duty II* Three Credit Hours
(Second Semester—First Class Year)

This course starts with a mini-course on Regional Studies of Africa, Asia, Central and South America, Europe, the Middle East and Russia and how events in these areas affect U.S. National Security Policy. Continued emphasis is placed on refining written and oral communications skills. Special topics are chosen to help prepare contract cadets for transition to active duty in the Air Force. Leadership Laboratory is required for AFROTC contract cadets. Leadership Laboratory is mandatory for AFROTC contract cadets and complements this course by providing cadets with leadership and followership experiences as well as preparing the individual for entry onto active duty.

Lecture: three hours
Lab: two hours (contract or cadets pursuing contracts)

Department of Military Science

Department Head: Crawford
Professor: Crawford
Assistant Professors: Brown, Hines, Leggett, Small
Senior Instructors: Grandy, Mitchell, Webb, Young

The Army ROTC program of instruction at The Citadel is geared toward teaching "hands-on skills" that are required of the new second lieutenant in the active Army, Army Reserve, or Army National Guard. Instruction at all levels centers around leadership. The program includes instruction in basic combat techniques, physical training, weapons, general military subjects, tactics, and communication skills. Selected cadets also have the opportunity to attend the Army's Airborne, Air Assault, Mountain Warfare, and the Northern Warfare Course, as well as to serve as "third lieutenants" with an active Army unit for two to four weeks in the Cadet Troop Leadership Training Progam. The Citadel also has one of the largest Simultaneous Membership Programs in the nation. This program is a volunteer officer training program which allows Army National Guard and Army Reserve enlisted members to also participate in the Advanced ROTC course leading to a commission in one of the Reserve Components. Over 50 cadets participate in these programs each year with a 98% graduation and commissioning rate.

Military Science is a four-year program of instruction, divided into a two-year Basic Course and a two-year Advanced Course. The first year (Military Science I) addresses the role of the individual soldier through instruction and practical training in the areas of physical training, marksmanship, first aid, map reading, U.S. weapons, and leadership. The second year (Military Science II) builds upon the first, through the development of more advanced individual skills such as land navigation, basic individual combat techniques, and small unit tactics and leadership.

The first year of the Advanced Course (Military Science III) is primarily designed to prepare contracted cadets for their performance and evaluation at the Leadership Development and Assessment Course (LDAC), which takes place between their junior and senior years. The curriculum focuses on instruction and practical training exercises in advanced land navigation and map reading, individual military skills, the principles and techniques of squad and platoon operations, the principles of organizational leadership, communications, fire support, U.S. Army weapons systems, and rigorous physical training. At the conclusion of the junior year, tcontracted cadets will attend LDAC at Fort Lewis, Washington. LDAC is based upon performance-oriented training and continuous leadership potential evaluation. Each cadet's LDAC evaluation is a principal determinant in branch selection and in being chosen for Active or Reserve Forces duty.

The final year of the Advanced Course (Military Science IV) consists of instruction in solving contemporary leadership problems, the principles of military justice, the techniques of military writing, the evolution of current tactics, precommissioning seminars, and military professionalism and ethics. The beginning of the senior year is the final opportunity for Citadel cadets to apply for a contract and seek an Army commission.

After the sophomore year, a transfer into Army ROTC from another ROTC program at The Citadel will only be permitted if the transferring student intends to pursue an Army commission and demonstrates by action that intent.

Cadets seeking a commission as a Second Lieutenants in the United States Army are required to successfully complete selected Professional Military Educational requirements by completing the Enhanced Skills Training Program (ESTP), demonstrating proficiency in military history by completing one of ten designated military history courses, and completion of both LDAC and the ROTC Advanced Course. Cadets are highly encouraged to take courses in mathematical reasoning (Algebra, Trigonometry, Calculus, Statistics), computer science, natural science (Biology, Geology, Chemistry or Physics), human behavior, management, and national security affairs to better prepare themselves for their futures as an Army officer. Cadets enrolling in Military Science are provided a consolidated list of all academic courses offered by The Citadel that satisfy the professional military education requirement.

Army Course Descriptions

MLTY 101 *Introduction to the Army* One Credit Hour

The first semester lays the foundation for the next four years of instruction. It concentrates on building a cadet's self-confidence on Army systems. It begins with an explanation of ROTC and U.S. Army organization. The remaining time is devoted to training each cadet on individual common tasks, written and oral communications, the customs and courtesies of the U.S. Army, and a physical fitness test.

MLTY 102 *Introduction to Leadership and Army Weapons* One Credit Hour

The cadet is taught the theory of leadership, concentrating on the traits of a leader and the principles of leadership. The second block of instruction provides the cadet with the opportunity to handle and operate U.S. Army weapons. Additional instruction centers on introduction to map reading and tactics. The semester culminates with a physical fitness test.

MLTY 201 *Leadership, Military Skills, and First Aid* Two Credit Hours

The cadet is trained on basic military map reading, land navigation, first aid, military writing, and leadership. Leadership study builds on the first year and examines different leadership styles. Additionally, team building, operations orders, briefings, and ethics and values are taught. A physical fitness test will be administered.

MLTY 202 *Operations and Tactics and Professional Knowledge Subjects* Two Credit Hours

The second semester begins with basic individual combat techniques and squad offensive and defensive operations. Instruction is given on oral communication, and cadets present a briefing. Further instruction is given on professional knowledge subjects, preparing and conducting training, and radio communication. A physical fitness test will be administered.

MLTY 301 *Leadership Theory, Tactics, and Basic Military Skills* Three Credit Hours

The curriculum for the junior year is primarily designed to instruct all cadets on leadership theory and basic Army tactics. Cadets receive detailed instruction on leadership practices, subordinate motivation, and ethics as well as instruction in small unit tactics, land navigation and tactical orders. Contracted cadets participate in one 24-hour field training exercise, leadership labs, weekly physical training and weapons familiarization.

MLTY 302 *Leadership Theory, Doctrine of Land Warfare, Squad and Platoon Tactics, and Advanced Military Skills* Two Credit Hours

The curriculum for the second semester is designed to build on the leadership theory that was presented in MLTY 301. Tactical operations focus on platoon level operations. Detailed instruction includes training management, land navigation, leadership skill and ethics. Cadets who are contracted will participate in one 24-hour field training exercise, leadership labs, weekly physical training, and will attend Advanced Camp at FT Lewis, WA.

MLTY 401 *Contemporary Military Subjects, Ethics, and Professional Military Development* Three Credit Hours

The main focus of the senior year is to prepare cadets for their first assignments as second lieutenants. Cadets learn how to plan and conduct military training and will further their leadership development by acting as trainers and leadership evaluators for the MLTY 301 and MLTY 302 contracted cadets. They also receive instruction on pre-commissioning requirements, briefings, and Department of Defense policies. A highlight of this semester is a block of instruction on the ethics and professionalism of the officer corps.

MLTY 402 *Professional Military Development* Two Credit Hours

The cadet's final semester centers around military law, supply maintenance, Joint Operations, ethics counseling and advanced leadership. Each cadet prepares and presents several oral presentations. The capstone of the senior year is the staff ride that brings together military concepts that have been learned throughout the year. The final event is the cadet's commissioning as an officer in the United States Army.

Department
of
Naval Science

Department Head: Frederick
Professor: Frederick
Associate Professor: Stanton
Assistant Professors: Bosse, Cooper, Grubbs, Hite, Koziuk, Maxwell, Pritchard, Richardson, Steingold

The Department of Naval Science course of instruction is designed to provide students with the basic professional knowledge and leadership skills needed to become Navy and Marine Corps officers. In the initial two years all students receive an orientation to the various aspects of the Navy and Marine Corps, followed by courses in basic naval engineering, weapon systems, leadership, and an overview of seapower.

Students may receive their final two years of instruction in either Navy or Marine Corps courses. Navy option students study naval engineering, combat systems, seamanship and navigation; Marine option students study the historical development of warfare and amphibious operations. Both options conclude with practical leadership training designed as final preparation for assuming the responsibilities of a junior officer in the Navy or Marine Corps. After the sophomore year, a transfer into Naval ROTC will be permitted only if the transferring student wishes to pursue a Navy or Marine commission.

Visits to Navy and Marine Corps facilities are provided to complement classroom instruction.

More information about Naval Science may be found at www.citadel.edu/nrotc.

Sequence of Naval Science Courses

Fourth Class Year
    All Naval Cadets
        NAVL 101 Introduction to Naval Science
        NAVL 102 Seapower and Maritime Affairs

Third Class Year
    Candidates for U.S. Navy commissions
        NAVL 201 Naval Leadership and Management I
        NAVL 210 Navigation

    Candidates for U.S. Marine Corps commisssions
        NAVL 201 Naval Leadership and Management I
        NAVL 311 Naval Ship Systems II (Weapons)

Second Class Year
  Candidates for U. S. Navy commissions
    NAVL 310 Naval Ship Systems I (Engineering)
    NAVL 210 Navigation

  Candidates for U.S. Marine Corps commissions
    NAVL 303 Evolution of Warfare I
    NAVL 304 Evolution of Warfare II

First Class Year
  Candidates for U.S. Navy commissions
    NAVL 310 Naval Ship Systems I (Engineering)
    NAVL 403 Naval Leadership and Ethics

  Candidates for U.S. Marine Corps commission
    NAVL 402 Amphibious Warfare
    NAVL 403 Naval Leadership and Ethics

Naval Science Course Descriptions

NAVL 101 *Introduction to Naval Science* One Credit Hour

This course provides the student with the basic understanding of the mission, organization, regulations, and broad warfare components of both the Navy and Marine Corps. Included is an overview of officer and enlisted rank and rating structures, training and education, promotion and advancement, courtesy and customs, discipline, leadership, ships' nomenclature, career opportunities in various warfare communities, and the challenges facing today's Navy and Marine Corps officers. (Navy faculty)

NAVL 102 *Seapower and Maritime Affairs* One Credit Hour

This course provides the student with a basic knowledge of seapower and maritime affairs. It is a study of the U.S. Navy from its inception during the Revolutionary War to the modern fleets of today. Chronological periods are broken down and discussed based on the following common themes: foreign policy, strategy, tactics, technological advances, interservice relationships, leadership, and Anglo-American relations. (Navy and Marine faculty)

NAVL 201 *Naval Leadership and Management I* Two Credit Hours

This course provides the student with a basic understanding of the fundamental concepts and principles of naval leadership and management. Theoretical aspects of the management functions and processes are examined, and their applications to the naval profession are discussed. In addition, motivation and motivational theories, counseling techniques, and effective communicative skills are studied and applied to naval leadership and management roles. This course is taught using lectures, experimental exercises, case studies, self-study exercises, and role-playing exercises. The goal of this course is to provide students with the fundamental concepts, principles, and sources of information necessary to establish a sound basis for their initial performance and future growth as a junior officer.

This course also provides students with the values and motivation which prepare them for service with the sense of honor and integrity required of a commissioned naval officer. (Navy faculty)

NAVL 210 *Navigation* Three Credit Hours

This course will provide the student with a working knowledge of pure navigation topics and a basic understanding of the requirements for standing any watch on the bridge. The course will cover the basics of Marine Navigation, Introduction to Electronic Navigation, Rules of the Road, and Introduction to Relative Motion; and will be evaluated through various practical exercises. (Navy faculty)

NAVL 303 *Evolution of Warfare I* Two Credit Hours

This course provides the student with a general knowledge of the concepts and art of warfare along with its evolution from the beginning of recorded history to the present. Included are the considerations of the influence that political, economic, sociological, and technological factors, along with different forms of leadership, have had on warfare, and also the theoretical principles behind modern strategy and tactics. (Marine faculty)

NAVL 304 *Evolution of Warfare II* Three Credit Hours

Prerequisite: NAVL 303

This course enables the student to acquire a working knowledge of the more practical aspects of warfare and the United States Marine Corps. The general principles of warfare addressed in NAVL 303 are considered as they relate to the small unit level. Tactical aspects of offensive combat are examined in detail. The student is given the opportunity to master skills required of the small unit leader—tactics and land navigation. Physical training is included to prepare students for summer training at Officer Candidates School, Quantico, Virginia. (Marine faculty)

NAVL 310 *Naval Ship Systems II (Engineering)* Two Credit Hours

This course is a detailed study of ship characteristics and types including ship design, hydrodynamic forces, stability, compartmentation, propulsion, electrical, and auxiliary systems, interior communications ship control, and damage control. Included are basic concepts of the theory and design of steam, gas turbine, diesel, and nuclear propulsion and safety systems. (Navy faculty)

NAVL 311 *Naval Ship Systems II (Weapons)* Three Credit Hours

This course provides the student with a basic understanding of the theory and applicable principles relating to the operation of naval weapons systems. The topics include details of radar and fire-control systems to include the capabilities and limitations; methods of target acquisition; identification and tracking of targets; detect, track, and engage sequence; basics of naval ordnance; principles of electronic components, computer functions, integrated fleet capabilities, sound energy, and basic strike mission planning. (Navy and Marine faculty)

NAVL 402 *Amphibious Warfare* Three Credit Hours

This course provides the student a comprehensive understanding of the development of amphibious warfare and validates its effectiveness in today's world. Divided into four parts, this course begins by examining the historical development of amphibious warfare and then examines its different forms as provided by foreign militaries. Students are then exposed to the current capability and doctrine of the U.S. Marine Corps and conclude the course by evaluating the future direction of amphibious warfare. This course establishes the theoretical foundation of the tactics, techniques, and procedures that the students will be taught at The Basic School in Quantico, Virginia, after their commissioning as Marine Second Lieutenants. (Marine faculty)

NAVL 403 *Naval Leadership and Ethics* Two Credit Hours

This course builds on the leadership concepts studied in Introduction to Naval Science, which examined leadership from a *values approach* (Naval Service Core Values) and skills approach (basic leadership qualities and followership); *Leadership and Management,* which took a process approach, defining leadership and management; and *Naval Science Lab,* which helped develop many of the skills and characteristics necessary for Naval Officers. This course stresses facilitated group discussion. After achieving an understanding of the fundamental theoretical concepts of Western moral traditions and ethical philosophy, students explore a variety of topics such as military leadership, core values, professional ethics, the Uniform Code of Military Justice, and Navy regulations. This course helps students examine their own ethical foundation, hone their skills in communicating, leading and influencing, and put the finishing touches on their preparedness for the challenges waiting in the Fleet. This course is designed to provide students with the foundation to make solid ethical and moral decisions as a leader in the United States Naval Service. (Navy and Marine faculty)

NAVL 410 *Naval Operations and Seamanship* Two Credit Hours

Prerequisite: NAVL 210

This course will build on the fundamentals presented in the Navigation, Engineering and Weapons Systems and prepare soon-to-be-commissioned officers to step on board their new ship/sub prepared to stand watch in the Combat Information Center or on the ship's bridge. This course will present the student with Advanced Navigation problems, Naval Communications, Naval Evolutions and Operations, and exposure to the Naval Warfare Doctrine and Joint Operations. (Navy faculty)

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